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ABSTRACT

More than 17,000 respondents from a representative sample of the population were interviewed by the Bureau of the Census during 1982 about their participation in arts activities. Separate national samples were collected during each month of the year. Ten major areas were addressed: (1) the size of the audience for the arts; (2) the relationship between attendance at live performances and recorded performances; (3) geographical variation; (4) demographic variation; (5) the impact of family background on participation; (6) the association between arts and non-arts activities; (7) the extent and nature of unmet needs; (8) reasons for not attending arts activities; (9) the relationship between amateur performance and attendance; and (10) the relationship between early introduction to the arts and later participation. Chapter 1 provides an introduction and background information. Chapter 2 details interview procedures and methodology. Chapter 3 examines the questions asked about participation at live performances of jazz, classical music, opera, musicals, plays, ballets, art galleries, and museums, as well as questions about reading habits. Chapter 4 examines the methodology and gives a more detailed analysis of the questions considered in Chapter 3. Chapters 5 through 9 deal with the non-core survey questions. Chapter 10 is an overview of the project. Extensive appendices dealing with documentation, methodology, and a comparison with an earlier Harris poll survey are also included. (IS)

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PUBLIC PARTICIPATION IN THE ARTS, 1982:

OVERALL PROJECT REPORT

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1982 SURVEY OF PUBLIC PARTICIPATION IN THE ARTS

EXECUTIVE SUMMARY

The 1982 Survey of Public Participation in the Arts (SPA'82) interviewed more than 17,000 respondents across the country. This extensive national survey was conducted across the full 12 months of the calendar year 1982, with separate national samples of about 1500 respondents each month.

The SPA '82 data were collected by the United States Bureau of the Census to ensure that they met rigorous scientific standards of sample design, respondent cooperation and interview standardization. This also ensured that the arts participation estimates from the survey could be projected to the national population with unprecedented confidence.

SOME MAJOR FINDINGS

Attendance at Live Arts Performances: Extensive data were collected on the public's reported attendance at seven types of live arts performances and events. Almost 40% of all SPA '82 respondents reported attending at least one of these seven types of live arts performances in the previous 12 months.

Annual participation rates across the seven types of arts performances ranged as follows:

Opera	3%
Ballet	4%
Jazz music	10%
Non-musical stage play	12%
Classical music	13%
Musical stage play	19%
Art gallery/museums	22%

In addition, more than 3% of the sample, representing almost 5 million

American adults, reported that they themselves had appeared in a public performance of one of these types of arts events in the previous year.

Audience Characteristics: Attendance at these seven types of arts events mainly related to a person's educational background. Thus, people who had graduated from college were 4 to 20 times more likely to attend one of these arts events than were persons with only a grammar school education.

While notable differences in participation were found by certain other background factors in the survey (e.g. age, income), most of these differences could be linked to the effects of educational background and other variables. Thus, without taking education and these other factors into account, attendance at live arts events was:

- Related to a person's socio-economic background in terms of occupation and income;
- Higher among women than among men, being particularly high among unmarried women with no children;
- Higher among middle-aged and younger adults than among older people;
- Lower among rural residents than among people living in urban or suburban areas; lower also among residents of the South than other regions;
- Slightly higher among unmarried adults than among married people -- and slightly higher among adults with no children living in their household (as compared to adults with children in the household);
- Lower among respondents who were not in the labor force (full-time homemakers, retired, unemployed, etc.) vs. those who were employed in a paid job;
- Higher among white respondents than among blacks or other racial groups.

After education and other factors were controlled statistically, however, only the differences in arts participation by gender held up.

Thus, while lower than average participation was found among residents of more rural (non-SMSA) areas, among blue-collar workers, among blacks and other non-white racial groups, among those over 75 years of age, among full-time homemakers and the unemployed, and among people with a pre-school child in the household, reported participation levels among these groups was only slightly below average after adjustment for other background factors. Considerable caution, therefore, needs to be taken in considering these background factors as important determinants or predictors of arts participation.

Other Arts Activities: The SPA '82 data also provided baseline information on several other arts-related activities. For example:

- Over half of respondents in the survey (56%) reported they had read a novel, short story, poem or play in the previous 12 months; an even larger proportion (84%) said they had read any book or magazine over that period.
- A fifth of respondents (20%) reporting reading poetry or listening to a poetry reading.
- Some 39% of respondents said they had attended an art or craft fair in the previous year.
- Some 37% of respondents reported visiting an historic site for its historic or design value.

In addition, substantial proportions of respondents (representing between 10 and 18 million American adults) reported participating more directly in arts-related activity. Some 11% of SPA respondents reported making photographs, movies or video tapes as an artistic activity; 10% reported painting, drawing, sculpting or printmaking; and 7% reported having done creative writing in the form of stories, poems or plays. In addition, 11% of respondents said they had taken a lesson in some arts-related activity (e.g. literature, music) in the previous 12 months, and over 3% reported doing some form of "backstage" work (lighting, sets, promotion) in connection with a live arts performance.

It might be thought that participation in these other arts-related activities might take time away from or otherwise interfere with attendance at the seven types of arts events noted above. However, the SPA survey found exactly the opposite. The more particular individuals participate in these other arts-related activities (e.g. painting, taking lessons, visiting historic sites, making photographs), the more they attended arts performances and events.

This pattern, referred to as "the more, the more" principle, characterized almost all the topic areas (e.g. use of mass media for arts content; barriers to participation) examined in SPA'82. The more-more pattern is thus a recurrent and dominant theme in this report, applying to the survey questions related to mass media usage for arts-related content, to the survey questions related to prior lessons or other "socialization" experiences in music or the arts, to the survey questions related to preference for more serious types of music and to the survey questions related to expressed interest in attending more arts performances and events. The more respondents experienced or took part in these activities, the greater their attendance at the seven types of arts performances.

The principle applied to many non-arts activities as well: the more active and extensive a person's leisure activities and interests are, the more likely that person is to attend arts events and performances.

These other SPA '82 survey topic areas are discussed in more detail in answers to main policy issues that the study sought to address.

TEN POLICY QUESTIONS

SPA '82 was mainly designed to answer ten major policy questions of concern to the National Endowment for the Arts:

1) How large is the current audience for individual arts and for the arts as a whole? As noted above, almost 40% of the SPA'82 sample reported attending at least one live arts performance in the preceding year, and the participation figure rises to 65% if reading literature is included. These figures represent between 64 million and 110 million American adults, respectively.

In terms of specific arts activities, the relevant audience sizes translate as follows to the nearly 165 million American adults in 1982:

Opera	5 million adults
Ballet	7 million adults
Jazz music	16 million adults
Stage plays	20 million adults
Classical music	21 million adults
Musicals	31 million adults
Art gallery/museums	36 million adults
Reading novels, etc.	93 million adults

Follow-up survey questions indicated that jazz performances and art gallery/museum visits were attended more frequently per participant than were the other five activities; ballet and musical theatre, on the other hand, were attended less frequently than average. Thus the above figures need to be adjusted slightly to represent total numbers of persons attending these types of live arts performances, rather than proportions who attended at all.

Consistent with the more-more principle, considerable overlap was found across the audience for their various arts forms. People who attended one type of arts performance were 2 to 10 times more likely to attend another. For example, people who attended opera were more than 3 times more likely to attend a classical music performance than were non opera-goers. Few distinctive clusterings of arts participation were found. Thus, the idea of segmented arts audiences was not supported by the SPA data.

2) For the performing arts, what is the relationship between attendance at live performances and participation via television, radio, and recordings? Consistent again with the more-more principle, respondents who reported watching or listening to arts-related programs in the mass media were also more likely to attend live arts performances. For example, 28% of respondents who reported watching a jazz program on television attended a live jazz performance compared to only a 6% jazz attendance rate among people who said they had not seen a TV jazz program; people who listened to jazz on radio and recordings reported similarly high

attendance rates.

This was true for watching programs of classical music or stage plays on television. And the more media used, the greater likelihood of attendance: thus, the attendance rate for jazz rose to 44% among respondents who listened to jazz music on all three media (TV, radio and recordings).

Far higher proportions of respondents watched or listened to arts-related programs in the mass media than attended parallel arts performances in person. Thus, 32% of respondents watched or listened to a media program of jazz music compared to the 10% who attended a live jazz performance. Some 38% attended to classical music on one of the media, 18% to opera, 37% to musical theatre, and 27% to plays. Some 16% watched a ballet performance on television and 23% a TV program on the visual arts.

3) Does the extent and nature of arts participation vary with geographic region and with community type and size? While respondents living in rural (non-SMSA) areas of the country and in the South did report lower arts participation than those in the other areas, these region differences were not large. These attendance rates came even closer to the national average after adjustment was made for the different demographic backgrounds of residents of those areas.

In general, there were few sharp regional or urban-rural differences in the relative ordering of arts audiences. Thus art gallery/museum attendance was highest, and opera attendance lowest, in virtually all parts of the country.

SMSA vs. non-SMSA differences were slightly larger for opera and ballet and smaller for classical music than for other arts activities. Regional differences seemed greatest for musical theatre and were minimal for visiting art galleries and museums.

4) What is the relationship between an individual's social, economic and demographic charateristics and the individual's participation in the arts? As noted above, education was the major predictor of arts participation. Once the factor of education was controlled, initial differences found by income and occupation were reduced considerably.

There was still some tendency, however, for the top (over $50,000) annual income group to be clearly higher in arts participation than lower income groups, even after effects of education were controlled. The magnitude of these differences and the relatively small size of this group, however, would not seem to justify characterization of the arts as "elitist" or of main benefit to the affluent.

5) What effect does family background have on participation in the arts? After adjustment for education and other factors, the major predictors of arts participation are gender and race, with women and white people being more active arts participants. Single

responses to this "arts barrier" question results were remarkably similar. For both attenders and non-attenders and across the seven arts forms, the major barrier respondents described for not attending more was "lack of time". Such responses stand in contrast to findings regarding the objective factors (work hours, children) that mainly restrict the free time people seem to have available.

The second and third most important barriers respondents cited were cost factors and accessibility factors. The latter factor was a particularly important reason for not visiting arts museums more often. Additional barriers included arts performances being "too far to go", having no one to go with and lack of personal motivation.

9) How is amateur participation related to attendance? As we noted when first introducing more-more principle, amateur participation was related to more, not less, arts participation. The same is true for visiting science museums, art/craft fairs, historic sites and for doing "backstage work" for arts performances.

Respondents who reported such amateur and spectator arts activities were from 50% to 200% more likely to attend arts events tha were people who did not.

10) How does formal instruction and training in the arts and early exposure while growing up effect later participation? Several common forms of arts "socialization" were reported in the survey, the main ones being music lessons (47%) and parental encouragement of non-school-required reading (67%). In addition, nearly a third of the sample (31%) reported having taken lessons in some craft (such as pottery or weaving) at some time in their life, and nearly a quarter (24%) reported taking a class in one of the visual arts; one in five (20%) reported having taken art appreciation classes.

In all, only 17% of the sample said they had not experienced any of these forms of arts socialization.

Consistent once again with the more-more principle, respondents who report more socialization experiences also report higher attendance at related arts events. For example, respondents who had taken music lessons, who had taken music appreciation classes, or who had parents who listened to classical music were about three times more likely to report attending a live jazz performance (or a live classical music performance) as were respondents who reported not having grown up with such experiences; such people were also much more likely to attend operas and musical theater.

People who had taken both music lessons *and* music appreciation classes are more likely to attend live classical music performances than are people who have taken only one or the other.

But while it is clear that prior socialization experience relates to present attendance at related arts events, these figures may provide a misleading picture of the nature and extent of women with no children were particularly active arts participants.

Otherwise differences by family characteristics (marital status, presence of young children) were surprisingly small, as were differences by the length of the respondent's workweek.

While older people tend to participate less than middle aged or younger adults, age differences are largely confined to the over age 75 — after other factors were controlled.

6) Are there patterns of non-arts activities which are associated with arts activities? The SPA'82 study identified many other leisure activities that were more popular than the arts. For example, 84% of SPA respondents reported reading any book or magazine in the previous 12 months, 65% played cards or other board games, 63% went out to the movies, 60% did some form of gardening and 59% did repairs and home improvements.

However, such activities do not appear to be directly competitive with arts participation. In fact, the more active people generally participated in leisure activities, the more active they are in arts activities — again consistent with the more-more principle. The one exception is general television viewing, where heavier viewers attend fewer arts performances than people who view less TV.

While certain of these individual non-arts activities correlated moderately well with particular arts activities (e.g. movie attendance with jazz and with ballet; volunteer work with ballet and classical music performances), clear life-style clusters of activities that predict arts participation have yet to be found in the data. The straightforward more-more principle remains both the simplest and the most appropriate way to describe how other leisure activity patterns relate to arts participation.

7) What are the extent and nature of unsatisfied demand for arts individually and as a whole? There seems to be a large "unmet" audience for arts performances. The proportion of respondents saying they would like to participate more in arts activities is from 40% to 200% higher than the proportion who reported attending the same type of arts events over the same survey period. Consistent again with the more-more theme, the proportion of those who say they want to attend more arts events is far higher among current attenders than among non-attenders.

However, it is usually the case that there are far larger numbers of people who currently do not attend who say they want to participate more. For example, 55% of the current attenders of classical music performances say they want to attend more such performances, compared to only a 14% rate among non-attenders. However, that first figure represents 11 million attenders, while the second represents 20 million non-attenders.

8) What reasons do those who say they would like to attend arts activities more often give for not doing so? When asked for reasons why they did not attend more arts performances, the pattern of

that relationship. First, it may be the case that people who attend current arts performances are better able to recall their socialization experiences than those who do not attend; they may also be more tempted to exaggerate their early arts exposure. Secondly, both socialization and attendance are related to common demographic factors, like education and age.

Thus, when these factors are controlled statistically, the differences between socialized respondents and non-socialized respondents diminish considerably—generally to about half the differentials noted above.

Chapter 1

INTRODUCTION

The 1982 Survey of Public Participation in the Arts (SPA '82) represented an important advance in our understanding of the nature and extent of the role of the arts in American daily life. While several national and regional surveys had been conducted on public participation in, and attitudes about the arts in American life prior to SPA '82, they were subject to several limitations. The studies conducted up to 1980 had not adequately articulated a standard definition of arts participation for particular arts activities (e.g. opera, jazz). Nor had they fully or consistently examined various modes of arts participation as performer, audience member or user of the mass media. The incompatibility of question wording and of procedures employed in data collection across the various studies prior to 1980 limited their use in identifying trends in arts participation over time.

In addition, most of these studies depended upon telephone surveys, which, compared with personal interviews, tend to overrepresent the more affluent portion of the population. These problems were compounded by uncertainties about the response rates that could be obtained in such studies. They indicate the necessity then, for a more systematic and definitive collection of arts participation data that could be generalized to the American population with suitable confidence and replicated regularly to track trends in participation.

PURPOSES OF THE SURVEY OF PUBLIC PARTICIPATION IN THE ARTS

The Survey of Public Participation in the Arts establishes for the first time the extent of public participation in specific arts activities in the United States. Such data can be used for several policy-making purposes in addition to estimating the number of arts participants. These include: (1) establishing a benchmark against which to compare future levels of arts participation; (2) identifying segments of the population that are more or less active in the arts; (3) determining factors that seem to stimulate or inhibit arts participation; and (4) identifying various types of arts participation. The data then will be used as a basis for identifying trends in arts-related behavior in the United States. Accordingly, we have designated the 1982 study with the acronym SPA '82 to distinguish it from future studies.

The data were collected in household surveys conducted by the U.S. Bureau of the Census, involving mainly personal interviews with a large cross-section sample of adult Americans (over age 18) as part of a larger social indicator study of the American population. The recognized quality and care of the Bureau's work is the major attractive feature of this data collection method. The Bureau's ability to collect standarized data with minimal distortion due to respondent noncooperation and sampling bias is unsurpassed.

The Census Bureau interviewed approximately 1500 respondents per month in 1982, so that arts participation data are available for over 17,000 respondents. The Survey Research Center of the University of Maryland consulted on the design and execution of the study and supervised the preparation of the data tapes, the subsequent analysis of the data and the preparation of this report.

ORGANIZATION OF THIS REPORT

Material in subsequent analyses in this report is organized into nine chapters: Chapter 2 examines in detail the field procedures and methodology used in the study, with further details given in Appendix A. Chapter 2 and Appendix A examine not only the field work and sampling aspects of the study, but also the questionnaire design, the procedures for coding and data processing and the basic analysis methods employed. Detailed examples are given on how the techniques of cross-tabulation, factor analysis, and the regression technique called "Multiple Classification Analysis" can be applied to the arts-related questions examined in this study. These analytic techniques are the main ones employed in Chapters 3 through 9.

Chapter 3 examines the "core" participation questions of attendance at seven types of live arts performances and events: jazz, classical music, opera, musicals, plays, ballet, and art galleries and museums; in addition, the reading of more serious forms of literature (i.e. novels, short stories, poems, plays) is included in this set of core questions. Each of these eight core questions was asked in each of the 12 months of the survey and are thus available for all 17,254 respondents in the survey. (The "core" questions will be a phrase used throughout this report to refer to measurements of participation in these eight arts-related activities.) In addition, questions were included on participation as a performer in several of these types of activities.

Chapter 4 examines certain methodological features and more detailed specialized analyses of these Chapter 3 data on core question participation. Among the methodological questions addressed are: What seasonal or month-to-month variations can be found in arts-related activities? How internally consistent are respondent reports of monthly participation with their reports of annual participation? How consistent are audience attendance data from arts organizations with other American surveys of arts participation conducted in this country, and with surveys of arts participation conducted in other countries? In addition, more detailed analysis of differences in participation is provided by the respondent's occupation and by the arts participation of the other members in the respondent's household.

Chapter 4 also briefly examines the various types of facilities or locations at which arts performances are attended, that is whether arts performances are seen in public or private facilities, in theaters, or in religious or educational institutions.

Chapter 5 is the first of the five chapters dealing with "non-core" survey questions,* which were asked only in certain months of the survey (the schedule of these non-core items was rotated month by month, as shown in Table 2 of Chapter 2). Chapter 5 deals with more general questions about leisure: namely items that asked respondents to describe their participation in other leisure and recreational activities. Some of these items were general activities (e.g., movies, gardening) and others were more cultural in orientation (e.g., poetry readings, visiting science museums). Answers to these items therefore, put each respondent's arts-related activities into the context of general everyday activity patterns, and allow one to examine the extent to which these activities seem either to stimulate or to inhibit arts participation.

Chapter 6 examines the extent to which the public uses the mass media for arts-related content. How many American adults watch theater or ballet on television? Do they listen to jazz or classical music on the radio, or on pre-recorded tapes and records? Response to those media questions make it possible to measure the great extent of arts exposure and participation that takes place outside of attendance at live performances, as well as indicating how use of these media relates to attendance at live performances.

Chapter 7 examines the extent of the respondents' prior "socialization" into the arts. Socialization questions include having taken lessons or classes in music or other art forms, courses in music or art appreciation, and parental exposure to and encouragement of arts-related activities. These questions make it possible to examine the extent to which public participation is a reflection of this prior exposure to the arts. How much of the arts audience is made up of people who have had such prior experience with the arts, for example?

Chapter 8 deals with the respondents' interests in increased arts participation, and with the perceived barriers that respondents feel inhibit increased arts participation on their part. Barriers examined include not only external problems, such as cost or distance factors, but internal factors as well, e.g. lack of personal interest and motivation. These questions therefore, reflect the "untapped" markets for arts exposure, and the factors that limit these potential arts audiences.

Chapter 9 is devoted to examining respondents' music preferences. What proportions of the public enjoy listening to classical music, to opera, or to jazz, rock or country-western music? How do these music preferences cluster together, and what is the demographic make-up of the audience for a particular type of music or music cluster? What is the relation of these music preferences to attendance at live arts performances?

As described further in Chapter 2, the exposition of survey material in Chapters 5 through 9 (and to a large extent Chapter 3) is organized in the following order of presentation:

1) Exact question wordings and the number of responses to each response alternative for each focal question for that chapter;
2) Percentages of the responses to each question;
3) Cross-tabulations of responses by basic demographic factors;
4) Adjusted cross-tabulation for these demographic factors by Multiple Classification Analysis;
5) Factor analyses of how these questions are mutually related in potential clusters of more strongly correlated variables;
6) Indices to summarize these variable interrelationships, as well as the demographic differences in these indices;
7) Relation of the responses to the individual questions in each chapter to the core arts participation questions (as reported in Chapter 3);
8) Relation of these indices (in each chapter) to the core participation questions.

Detailed information on the survey methodology is given in the next chapter, with fuller details provided in Appendix A. Readers interested in the survey results can proceed directly on to Chapter 3, although they may need to refer back to Chapter 2 for further explanation of the methodological techniques and conventions used in this report.

Chapter 2

FIELD PROCEDURES AND METHODOLOGY FOR SPA '82

The 1982 Survey of Public Participation in the Arts (SPA) interviewed a national sample of 17,254 persons representing the adult public aged 18 and over in the United States about their participation in the arts, their arts experiences, and their preferences. Interviews were conducted mainly in person in 12 separate months: from January, 1982 through December, 1982. Each month's sample was made up of a separate national cross-section sample of about 1,450 respondents each.

The sample consisted of supplemental interviews in randomly selected households in a continuous omnibus survey conducted by the Bureau of the Census for various federal agencies. That panel study has been conducted regularly since July 1972. In the national sample of the National Crime Survey, 72,000 households are visited over a three and a half year period, with new units replacing expired ones at the end of that period. It is a sample of housing units and not individuals. Respondents in these omnibus survey households are interviewed every six months over a three and a half year period for a total of seven interviews.

In order to have minimal impact on the responses to other parts of the survey, the SPA sample consisted solely of respondents in households in the final (seventh) round of the panel -- called the "exit rotation." That meant that most respondents had been interviewed before (up to six times over the previous three and a half years). The SPA survey questions thus came at the end of the seventh round of interviewing. Interviewing took place each month at approximately 10,000 households, of which about one-seventh were administered the SPA.

The same rules for confidentiality were applied to the SPA as are used for the larger survey. In each eligible household, all members who were 18 years of age or older were to be included in the SPA sample, thus making the sample self-weighted in terms of adult household composition. The SPA questions were asked immediately after the NCS questions were completed. If the eligible respondent could not complete the SPA in person, it was completed by telephone.

It is unclear whether, or how much, responses to the SPA questions were affected by their being asked in this context of a sixth survey round with repeated questions about other topic areas. Respondents might have underreported participation in order to complete the survey more quickly (having learned that "yes" responses lead to further questions in the other parts of the survey) or because they saw these questions as some follow-up check on these questions. On the other hand they might have overreported participation because they had little activity to report, they wanted to please or impress the announced sponsors of the survey (the National Endowment for the Arts), or to portray themselves to interviewers as cultural, literate or sophisticated individuals. (Although no experimental survey evidence was collected to verify the extent of any such biases in reporting, a follow-up telephone survey conducted at the University of Maryland produced activity estimates that were close to those in the SPA, suggesting no major biasing effect of the field procedures used in the SPA.)

Outline of the Questionnaire

The SPA questionnaire was divided into two types of questions: a set of core items on annual arts participation, and a set of rotating items that surveyed correlated activity patterns and predictors of that participation. Table 1 shows the core participation items, which include questions both on participation at arts performances or events as an attendee (questions 1-7) and on participating in these same activities as a performer (questions 8 and 9). More detail on the extent of attendance at arts events was collected for the previous month as well as for the year (see Table 2 for the survey question sequence for each month).

Because the sample was chosen to be representative of the entire population of the country with a maximal response rate, the results of the survey can be extrapolated to produce fairly precise projections of the number of participants in each of several arts-related activities. It was designed to generate precise sample estimates of the number of people who have visited an art museum, who have attended an opera, or who themselves have taken part in stage performances. Moreover, because of the size of the sample, it is possible to derive useful estimates from them for certain participation rates for the arts-- the proportion of arts participants in particular locations (e.g. more rural areas, New York City, the South), or from particular population groups (certain minority groups, less affluent segments, the retired). These analyses can identify patterns of participation on each of these factors. Cyclical patterns across the year can also be examined.

Second, it becomes possible to examine the interrelation between various forms of arts participation to answer the question of whether partici-

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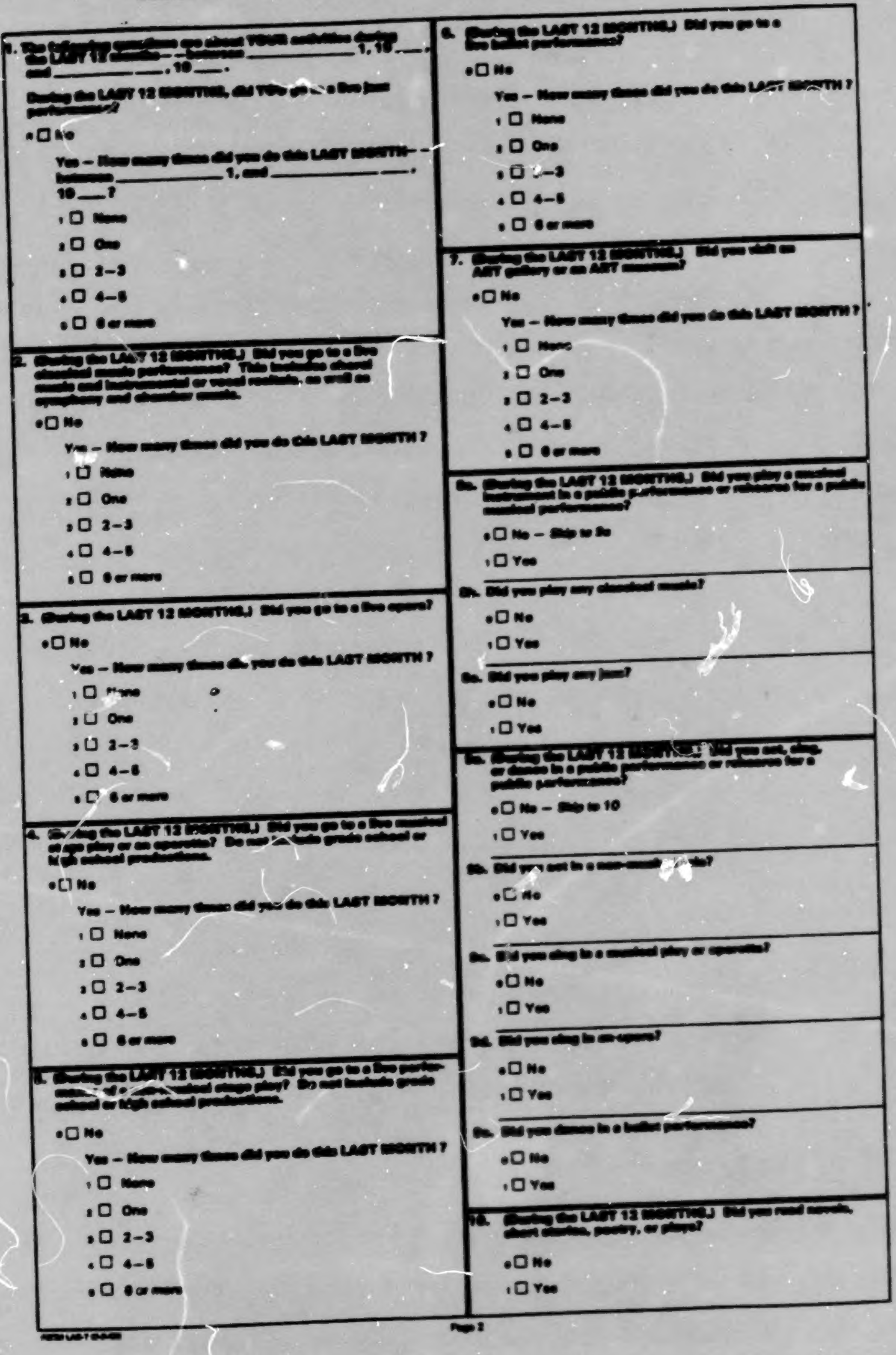
Table 1: Core Arts Participation Questions



1. The following questions are about YOUR activities during the LAST 12 months — between ______ 1, 19__, and ______, 19__.

During the LAST 12 MONTHS, did YOU go to a live jazz performance?

0 ☐ No

Yes — How many times did you do this LAST MONTH — between ______ 1, and ______, 19__?

1 ☐ None
2 ☐ One
3 ☐ 2–3
4 ☐ 4–5
5 ☐ 6 or more

2. (During the LAST 12 MONTHS,) Did you go to a live classical music performance? This includes choral music and instrumental or vocal recitals, as well as symphony and chamber music.

0 ☐ No

Yes — How many times did you do this LAST MONTH?

1 ☐ None
2 ☐ One
3 ☐ 2–3
4 ☐ 4–5
5 ☐ 6 or more

3. (During the LAST 12 MONTHS,) Did you go to a live opera?

0 ☐ No

Yes — How many times did you do this LAST MONTH?

1 ☐ None
2 ☐ One
3 ☐ 2–3
4 ☐ 4–5
5 ☐ 6 or more

4. (During the LAST 12 MONTHS,) Did you go to a live musical stage play or an operetta? Do not include grade school or high school productions.

0 ☐ No

Yes — How many times did you do this LAST MONTH?

1 ☐ None
2 ☐ One
3 ☐ 2–3
4 ☐ 4–5
5 ☐ 6 or more

5. (During the LAST 12 MONTHS,) Did you go to a live performance of a non-musical stage play? Do not include grade school or high school productions.

0 ☐ No

Yes — How many times did you do this LAST MONTH?

1 ☐ None
2 ☐ One
3 ☐ 2–3
4 ☐ 4–5
5 ☐ 6 or more

6. (During the LAST 12 MONTHS,) Did you go to a live ballet performance?

0 ☐ No

Yes — How many times did you do this LAST MONTH?

1 ☐ None
2 ☐ One
3 ☐ 2–3
4 ☐ 4–5
5 ☐ 6 or more

7. (During the LAST 12 MONTHS,) Did you visit an ART gallery or an ART museum?

0 ☐ No

Yes — How many times did you do this LAST MONTH?

1 ☐ None
2 ☐ One
3 ☐ 2–3
4 ☐ 4–5
5 ☐ 6 or more

8a. (During the LAST 12 MONTHS,) Did you play a musical instrument in a public performance or rehearse for a public musical performance?

0 ☐ No — Skip to 9a
1 ☐ Yes

8b. Did you play any classical music?

0 ☐ No
1 ☐ Yes

8c. Did you play any jazz?

0 ☐ No
1 ☐ Yes

9a. (During the LAST 12 MONTHS,) Did you act, sing, or dance in a public performance or rehearse for a public performance?

0 ☐ No — Skip to 10
1 ☐ Yes

9b. Did you act in a non-musical play?

0 ☐ No
1 ☐ Yes

9c. Did you sing in a musical play or operetta?

0 ☐ No
1 ☐ Yes

9d. Did you sing in an opera?

0 ☐ No
1 ☐ Yes

9e. Did you dance in a ballet performance?

0 ☐ No
1 ☐ Yes

10. (During the LAST 12 MONTHS,) Did you read novels, short stories, poetry, or plays?

0 ☐ No
1 ☐ Yes

FORM LAD-7 [illegible]

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pation in one form of arts activity appears to have an effect on participation in other forms. Is attending an opera performance related to attending classical music concerts? Or does the reverse hold true? Or are they unrelated? Multidimensional analyses of prior studies of arts participation (for example, Reed and Marsden 1980; Peterson and Hughes 1982) have identified several patterns of arts participaton. The SPA data make it possible to verify whether these earlier clusterings hold for a very large and representative national sample. The SPA patterns can also be used to better organize and to simplify subsequent multivariate analyses that attempt to identify the factors that determine arts participation.

Subsequent sections of this chapter deal in more detail with:

I) The sample design and procedures for the larger omnibus survey;
II) Measuring sampling error;
III) General data collection organization;
IV) Interviewing procedures for the National Crime Survey;
V) Field procedures for the SPA;
VI) SPA questions and rationale;
VII) Coding and data entry;
VIII) Weighting procedures;
IX) Methods of statistical analysis;
X) Multiple Classification Analysis (MCA);
XI) Factor analysis;
XII) Index construction.

Table 2: Question Sequence in SPA'82

CATEGORY	QUESTIONS AND CONTENT	ASKED IN THESE MONTHS IN 1982
(1) Barriers to participation	13 reasons preventing participation (e.g., cost, distance, time).	January, July, November, December
(II) Socialization experiences	Lessons taken in music, visual arts, theatre, writing, crafts, art appreciation, music appreciation. Parental escort to music/opera, museums, dance, reading.	February, August, November, December
(III) Recreational lifestyle	Participation in any of 14 recreational sports (hobby, spectator, etc.) activities over the prior year.	March, September, November, December
(IV) Performance locations/ favorite music	Attendance at any of 11 types of arts facilities. Like to listen to 14 types of music.	April, October November, December
(V) Other arts-related participation	Attendance at art festivities, monuments, museums, experiences involving arts; take part in crafts, staging or artistic activities.	May, November, December
(VI) Mass media participation	Television, radio and recordings related to jazz, classical music, opera, musicals, plays, ballet, and art galleries.	June, November, December

I. SAMPLE DESIGN AND PROCEDURES

The larger Census Bureau project consists of interviews conducted each month at a sample of households selected by scientific sampling methods from 376 sample areas throughout the United States.

1. Sample Design

a. Sample areas, called Primary Sampling Units (PSU's), were established as follows:

- All of the counties in the United States were classified either singularly or in combinations with other counties. Those with similar characteristics such as growth, population, principal industry, and type of agriculture, were grouped together.
- From each group, one or more counties, or combinations of counties, was selected to represent that group. These representative counties (or combinations) are called PSU's.

b. Within each PSU:

- A sample of Census Enumeration Districts (ED's) was selected from the 1970 Decennial Census.
- The selected ED's were divided into small groups of addresses called segments.
- Each segment consists of a group of addresses which are assigned for interview.

c. There are five types of segments: area, address, special place, permit, and census supplementary (Cen-Sup). In all segments, the sample is of addresses, not persons or families.

d. The sample also includes housing units constructed since the most recent census.

- In places where building permits are issued for new construction (Permit Areas), a sample of building permits issued since the last Decennial Census is selected. These addresses are assigned as permit segments.
- In places where no building permits are required (Non-Permit Areas), newly constructed units are listed and interviewed in area segments.

In Non-Permit Areas, only area segments are assigned.

e. Some sample units are located in special places, with special living arrangements, such as dormitories, institutions, convents, or mobile home parks. Units from the 1970 Census which were identified as belonging to a special place are designated as special place segments.

Special places which were not identified as such in the 1970 Census may appear in area and address segments.

Further details on sampling procedures are given in Section I of Appendix A to this report.

II. MEASURING SAMPLING ERROR

1. Sample:

Since survey estimates are based on a sample, they may differ somewhat from the figures that would have been obtained if a complete census had been taken using the same schedules, instructions, and enumerators. As in any survey work, the results are also subject to errors of response and of reporting, as well as being subject to sampling variability.

The estimates of standard error produced from the sample data are primarily a measure of sampling variability, that is, of the variations that occur by chance because a sample rather than the whole of the population is surveyed. The estimates of standard error also partially measure the effect of response and enumeration errors, but they do not measure, as such, any systematic biases in the data.

Each estimate made from the survey process has its own variance and resulting standard error. It is, however, impractical to compute an estimate of the variance for every sample estimate. Therefore, variances are estimated for a small subset of the sample estimates. These variances are then generalized to be applicable to all estimates from each of the various aggregate estimates (e.g. percentage attending jazz performances, percentage watching classical music performances on television, percentage liking rock music).

The total error of an estimate involves a component, in addition to the variability due to sampling and that is called non-sampling error. This component is called the bias of the estimate. The bias is the difference between the average of all possible samples (this average is conceptual since only one sample is used) and the attempted value to be estimated.

This is the result of:

a. The types of estimates being produced (e.g., ratio estimate). These are known to be biased but are preferable to certain other unbiased estimates, because of the amount of reduction they bring to the variance of the estimates.

b. Systematic errors in response. These can result from recall problems, interviewer effect, questionnaire wording, etc.

c. Processing errors. These can result from duplication or omission of units in the sampling frame, methods of adjusting for nonresponse, coding, classification, and edit errors, etc.

The amount of bias cannot be directly observed and estimated. It is known to exist, though, and during the survey process, efforts are made through design and control operations to limit its effect.

2. Variances and Sample Errors for the SPA:

With respect to the sampling errors for the SPA portion of the sample, Table 3 shows first the theoretical sampling error for this size sample and then the actual observed variation. These are shown for the main core of ten questions in the SPA along with other selected activity questions in the SPA. As shown in this table, for example, the proportion of respondents who said they attended a live jazz performance in the previous 12 months was 9.6% -- which is rounded to the nearest whole percentage (10.0%) in Chapter 3. Using the theoretical mathematical formula to compute sampling errors, one standard error for this size sample is:

Table 3: Sampling Error Calculations

At Least Once in the Last 12 Months	Estimated Participation Rate	Theoretical Sampling Error (n=13,254)	Theoretical Sampling Error (n=8,627)	Observed Sampling Error (n=8,627)	Design Effect
Attended:					
Jazz	.096	.0022	.0032	.0044	1.35
Classical Music	.130	.0025	.0036	.0055	1.52
Opera	.031	.0013	.0019	.0027	1.42
Musical Plays	.186	.0028	.0040	.0056	1.41
Non-Musical Plays	.119	.0021	.0030	.0042	1.39
Ballet Performances	.041	.0015	.0021	.0026	1.23

$$\sqrt{\frac{.096(.904)}{17,254}} = .0022 \text{ or } .22\%$$

The population bounds for these questions for 95% confidence is obtained by roughly doubling this interval of This means that the 95% confidence interval falls .4% above and below the average estimate, i.e., between 9.6%-0.4% and 9.6%+0.4%, or between 9.2% and 10.0%.

But that is the theoretical proportion for a completely random sample, and SPA respondents were chosen by clustered random sample. As noted above in Section 1, that means that clusters or segments of households (about 4) in a neighborhood were chosen. Since people in neighborhoods may tend to share certain characteristics (such as going to jazz or classical music performances), that raises the possibility that the effective after-sample size is lower because of this clustering due to the homogeneity of people who live close to one another or in the same area.

Further clustering was introduced in the SPA by interviewing more than one member in a household, since persons who live together also share and determine each others' activities to a greater extent than do people who share space in the same neighborhood.

Methods for measuring the effect of this clustering (described as the design effect) are: (1) to treat the total sample as a series of random samples of half the size of the total sample; and (2) to observe how much larger the sampling variance for this half-sample is than the theoretical figure described here. In other words, the 17,254 respondents are randomly divided into half-samples of about 8,600 respondents each, and the variations in estimates for these half-samples are compared to the variation expected theoretically.

For the present study, 16 such half-samples were generated. In the case of jazz performances, the first half-sample of 8,600 chosen at random produced an estimate of 9.5% attendance of jazz performances, or 0.1% less than the overall average; (its complementary sample of 8600 produced a figure of 9.7%; that was of course equivalently 0.1% above the overall average for the total of 17,254). The second half-sample produced an estimate of 10.5%, the third 9.1%, the fourth 9.4% and the remaining 12 half-samples produced figures of 9.9, 9.3, 9.4, 9.0, 9.2, 9.7, 9.9, 9.4, 9.6, 9.6, 10.2 and 10.1. These 12 estimates are clearly rather close to the overall observed average of 9.6%. But are they as close as the theoretical sampling formulas for this size sample would predict?

That is estimated from the sum of each of the half samples. There the deviation from the overall average for the first half sample is 0.1%, as noted above, 0.9% for the second, 0.5% for the third, 0.2% for the fourth and then 0.3, 0.3, 0.2, 0.6, 0.4, 0.1, 0.3, 0.2, 0, 0, 0.6 and 0.5. The average deviation for these 16 figures is about .5%; the standard deviation from the statistical formulas is closer to 0.4%.— 0.0044 to be exact. In contrast, the theoretical figure for a completely random sample of size 8,627 is:

$$\sqrt{\frac{.096(.904)}{8627}} = .0032$$

which is about three-quarters as large as the .0044 figure that is observed.

Therefore, we estimate that the overall design effect due to sample clustering is the ratio of .0044/.0032, or 1.35. This means that the sample is 35% less efficient than an unclustered random sample and that the effective sample is only three quarters as large as the number of people actually interviewed. The design effects shown for other questions in Table 3 also indicates a sample effectiveness ratio of about the same magnitude.

III. GENERAL DATA COLLECTION ORGANIZATION

1. Regional Offices

There are 12 permanent Census Regional Offices whose combined territory includes all 50 states and the District of Columbia. Each Regional Office is staffed with one supervisor and one clerk who works on the project on a full-time basis. The field staff consists of about 60 senior interviewers who assist the supervisors in conducting observation and reinterviews, and about 500 interviewers. For purposes of operating the offices and training the field personnel, there are several manuals, training guides and control forms in use.

2. Interviewer Selection and Training

Potential interviewers are recruited and given a written standard aptitude test of 35 questions. Twenty-three or more correct responses is an acceptable score. Interviewers then complete the initial self-study package on the larger survey and attend a two-day classroom training session conducted by supervisors. Subsequent to classroom training, each interviewer is observed during the first one or two days of actual interviewing. Each new interviewer is again observed for one day during the second month of interviewing. Observations are conducted either by a supervisor or a senior interviewer. In addition to the basic training, all supervisors and interviewers receive regular monthly instructions to reinforce previously learned concepts and techniques or to present new material.

3. Enumeration and Checks

Each interviewer is assigned about 30 households to interview in various segments as close as possible to his/her residence. Enumeration is completed within the first two weeks of every month. The quality of interviewing is maintained through (1) direct observation of all interviewers at least once a year; (2) office editing of completed work to ensure that instructions have been followed, entries are consistent and required items are filled; (3) verification of interviewing by reinterview. Five percent per month of all households are assigned for reinterview. Reinterviewing helps to evaluate the impact of errors on variations in response. It also measures errors in coverage of the sample arising from incorrect listing, and detects failure to conduct interviews at the correct address, noninterview misclassifications, and missed units or incorrect application of definitions of housing units and household members.

4. Preparation for Interviewing

Each month interviewers receive Control Cards for each sample unit in their assigned area from their regional office. Those with only the heading filled in show that the sample unit is to be interviewed for the first time. This card is the basic record for each sample unit. The front part contains the address of the unit and basic household data such as the names, ages, race, education, and other demographics of every person living in the household if the household has been contacted before.

The interviewers also receive a supply of basic "Screen Questionnaires" which contain identification items, personal characteristics, household screen items and individual screen items. In addition, the interviewers are given an Information Card Booklet to be used in completing the interview.

Further details on general data collection, organization, and procedures are given in Section III of Appendix A.

IV. INTERVIEWING PROCEDURES FOR THE LARGER NATIONAL SURVEY

As explained above, the Survey of Public Participation in the Arts was a supplement to the omnibus national survey which was conducted first. This section describes the procedures for conducting this omnibus survey, and the following section describes the procedures for the specific questions.

1. "Dear Friend" Letter

Before the scheduled field interviews, a "Dear Friend" letter informing each household about the survey is sent to the sample household before the first enumeration. A differently worded "Dear Friend" letter is sent before each subsequent enumeration. An example of the letter is shown on the following page. Note that the introductory letter informs the household of the interviewer's impending visit and provides information required by the Privacy Act of 1974.

2. Interview Method

The first step in the interview itself is the introduction, in which the interviewer introduces himself or herself, states that the U.S. Bureau of the Census is conducting the survey, and shows the respondent an identification card. An explanation of the nature of the survey is given, and it is verified that the respondent has received the introductory letter which provides information required by the Privacy Act.

If the respondent requires more information, the interviewer explains why the particular respondent was chosen and provides an explanation of the survey's confidentiality: that all information about individuals is held strictly confidential by law; that the name and other information that would permit personal identification of the respondent is not available to persons other than those involved in the survey; and that the information from all respondents is combined to obtain statistical totals for publication.

If possible, each respondent is interviewed privately to keep unauthorized persons from listening to an interview. Special arrangements can be made if an interpreter is needed. Each question is asked exactly as instructed, in the same order and with the same wording. The interviewers follow the standard procedures for good interviewing and then record the answers on the survey form. If any of the household members 14 years old or older are not present at the time of the initial interview, callbacks to interview the remaining members are made by telephone for the general survey. For the SPA, this was the case for all household members 18 or older.

The initial contact with the household is a personal visit, in which interviews are to be obtained for as many household members 12 years or older as possible. Subsequent to the initial personal interviews, however, in order to save time and money, the interviewers are allowed to make telephone callbacks to obtain interviews with the remaining eligible household members. The following criteria are used to decide whether or not to telephone:

a. The size of the assignment, since a telephone interview is quicker than a visit in terms of travel time to the sample unit.

b. The distance of the sample household from the interviewer's home.

c. Whether it would be cheaper to telephone or visit the household.

d. A respondent's preference for either the telephone interview or the personal interview.

3. Persons Interviewed

a. Household Respondent:
Questions pertaining to the entire household-including information about household composition- are asked only once. Almost any adult is technically eligible to answer household questions. Such questions include the Control Card items and Household Screen Questions. The interviewer is instructed to interview the most knowledgeable household member; that is, the one who appears to know—or who could reasonably be expected to know—the answers to the household questions. Most frequently, this is the head of the household or the spouse. If it becomes apparent that the particular household member being interviewed for the household information is unable to answer the questions, a more knowledgeable respondent is found, or arrangements are made to call back when a knowledgeable respondent is available.

b. Self Respondent:
Questions on the basic questionnaire pertaining to individuals are asked as many times as there are household members 12 years of age or older. Information about each household member 14 years and over is obtained by self-response; that is, each of these persons provides information about himself.

c. Proxy Respondents:
Information about each household member aged 12 and 13 is obtained by a proxy; that is, the general survey questions for these persor are asked of the household respondent or some other knowledgeable household member.

Proxy interviews are also taken if a particular respondent is physically or mentally unable to answer the individual questions or if a household member 14 or older is temporarily absent and is not expected to return before the enumeration closeout date.

4. Noninterviews

Occasionally, an interview for a sample unit is not obtained and the unit is classified as a noninterview. Reasons for noninterviews include the following:

a. The unit is not occupied.

b. The unit is occupied only by persons not eligible for interview.

c. The unit is occupied by eligible persons, but an interview is not obtained.

d. The unit had been demolished or is no longer used as living quarters.

Household noninterviews are classified into three groups--Types A, B, and C.

a. The Type A noninterviews consist of households occupied by persons eligible for interview, but from whom no interviews are obtained. These noninterviews arise under the following circumstances:

- No one is found at home in spite of repeated visits.
- The entire household is temporarily away during the entire interview period.
- The household refuses to give any information.
- The unit, although occupied, cannot be reached because of impassable roads.
- An interview is not conducted with any household member because of serious illness or death in the family.
- The interviewer is unable to locate the sample unit.

Under most circumstances, Type A noninterviews are considered avoidable noninterviews, and every effort is made to convert them to interviews. Interviewers are trained to explain fully the purposes of the survey to reluctant respondents. If no one is at home, the interviewer leaves a note attempting to have the respondent contact him/her, or calls back at various hours in attempts to find someone in the household at home.

It is considered important to keep Type A noninterviews to a minimum in order to avoid losing information from these households and to maintain a sample representative of the population.

b. The Type B noninterviews result from units which are either unoccupied or which are occupied solely by persons not eligible to be interviewed. These noninterviews arise under the following circumstances:

- The unit is a vacant regular housing unit.
- The unit is vacant and used for storage of household furniture.
- The unit is temporarily occupied by persons who usually reside elsewhere.
- The unit is unfit for habitation or is to be demolished.
- The unit is under construction, but is not ready to be occupied.
- The unit has been temporarily converted to business or storage.
- The sample address identifies an unoccupied tent or trailer site.
- A building permit has been granted, but construction has not started.

c. Type C noninterviews result from ineligible units for sample. Reasons for Type C noninterviews are:

- An unused line of the listing sheet; i.e., no address was listed on a line previously designated for the general sample.
- The unit has been demolished by the time of enumeration.
- The house or trailer has moved.
- The unit has been converted to permanent business or is used

for storage.

- The unit has merged with another unit.

When a unit is classified as a noninterview, only a few items are filled on the Control Card and a Noninterview Record is filled out.

Occasionally, the interviewer is unable to obtain an interview for a particular household member in an otherwise interviewed household. This person is classified as a Type Z noninterview. For a Type Z noninterview, only a few personal characteristics items are filled on the control card.

The noninterview rates in certain categories for the 12 months of the Survey of Public Participation in the Arts are shown in Table 4:

Table 4: Non-Interviews in Twelve Months of the 1982 Survey of Public Participation in the Arts

	Jan.	Feb.	March	April	May	June	July	April	Sept.	Oct.	Nov.	Dec.
Type A* (households)	5.0%	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Noninterview Rate (preliminary person)	6.3%	8.7	7.4	6.3	6.5	8.3	12.0	9.2	13.0	6.3	13.2	11.7
Noninterviews												
Type Z**	37	47	61	34	35	27	46	44	26	37	47	47
Proxy***	32	45	32	36	35	43	71	52	17	28	39	30
Refusal SPA	22	47	36	24	34	46	53	48	53	36	96	90
Other****	0	11	5	5	7	10	28	4	101	5	14	20
TOTAL	91	150	134	99	111	126	198	148	197	106	196	187
Completed SPA Interviews	1435	1572	1803	1475	1593	1385	1405	1460	1315	1570	1283	1408
TOTAL SPA CASES	1526	1722	1937	1574	1704	1511	1603	1608	1512	1676	1479	1595

* NCS Type A- An occupied sample unit for which no data were obtained because no one was home, the occupants were temporarily away during the entire interview period, the household refused to be interviewed, or another reason such as impassable roads, unable to locate, illness or death in the family.

** NCS Type Z- A household member is a person-noninterview in an otherwise interviewed household. (If all persons in a household are not interviewed, the household is a Type A noninterview.)

*** NCS Proxy- NCS interview for an individual obtained by proxy (from household respondent or another knowledgeable household member) because individual was mentally or physically unable to respond or because individual was temporarily absent during the interview period.

**** Includes Type A Households.

In general Table 4 shows that Type A noninterviews (unoccupied units, general study referrals, etc.) were fairly evenly scattered across the 12 months and represent a loss of about 5% of all eligible housing units. Other types of non-interviews averaged about 10% for the entire survey and varied more widely by month--from just over 6% in January, April, May and October to over 11% in July, September, November and December.

The higher noninterview rates in September occurred due to difficulties in locating respondents who were chosen using a different sampling procedure than the one used for other months. September respondents were originally in the exit rotation for August, but were not administered the SPA until the following month. Their sixth interview consisted of the NCS only. Those respondents were then contacted again to complete the SPA, in September. Because the SPA was their seventh interview, it was more difficult to obtain their cooperation than was true for respondents in other months even though the interview was shorter.

The reasons for the high noninterview rate for July are less clear, although this was a vacation month people were away from home and there was an unusually large number of proxy interviewers that month.

5. General Interviewing Sequence

The general interview sequence for NCS is: (1) complete a Control Card on the unit; (2) ask all appropriate personal characteristics and screen questions (including Household Screen Questions) on the Basic Screen Questionnaire of the household respondent; (3) provide detailed reports on the Incident Report of any incidents of crime mentioned by the household respondent in the Basic Screen Questionnaire; and (4) ask all appropriate personal characteristics and screen questions and complete Incident Reports, if any, for each subsequent eligible household member. An entire general survey interview was completed for each household member before proceeding to the next person. Thus, none of the SPA questions were asked during the general survey interviews to ensure that SPA would not impact on the NCS victimization questions. Instead selected survey respondents were asked the SPA questions following the general questions. The SPA selection procedures and questions, which were designated to take about 20 minutes of interviewing time, are described in the next section.

V. FIELD PROCEDURES FOR THE SURVEY OF PUBLIC PARTICIPATION IN THE ARTS (SPA)

Once each respondent aged 18 and over had completed the general survey questions, they were read an introductory statement about the purpose of the SPA, its sponsoring agency, and its voluntary confidential nature. The statement also attempted to establish that the survey pertained to the respondent's situation only and not to that of any other members of the houehold (as was the case for some of the general survey interview questions). The introductory statement for both personal and telephone interviews is shown in Table 5. Further details on selection procedures are given in Section V of Appendix A.

VI. SPA QUESTIONS AND RATIONALE

The Survey of Public Participation in the Arts (SPA) consists of several series of questions dealing with various aspects of arts participation. These include: the common set of 10 core activity items (shown in Table 1) and a rotated series of six different questions dealing with:

1. Participation in 36 other specific leisure activities;
2. Use of mass media for arts participation;
3. Socialization experiences and lessons/classes taken in arts-related activities;
4. Interval in increased levels of participation and perceived "barriers" that prevent fuller participation;
5. Liking of 13 types of music and favorite type of music;
6. Detailed information on the types of places at which the core arts participation took place.

A. Pretest

The SPA underwent several rounds of pretesting prior to the January 1982 survey.

First, questions had to be developed and refined concerning several new topic areas. There were complicated issues surrounding the phrasing, format and sequence of core activity questions: What time frame to employ (yearly, biannually, monthly, weekly); how to define activities and separate them from each other; how to handle amateur and school productions, etc.

Recommendations from a series of pilot tests conducted by Census Bureau field staff resulted in a draft questionnaire in 1980. These recommendations were then operationalized according to Census Bureau formats and procedures. It was determined from these pilot tests, for example, that the term "modern dance" had little clear meaning to respondents and was apt to lead to much confusion in interpretation.

The SPA was fully pretested in the summer of 1980 with a sample of approximately 200 respondents selected to eliminate the need for callbacks (to addresses where the occupants were not at home, were temporarily absent, or refused to participate). The addresses came from test census tracts for District Heights, Maryland, and for Alexandria and Arlington, Virginia, which were not used in other Census Bureau surveys. To save time and travel costs, all available household members 18 years and older were interviewed during the pretest.

Interviewing teams (of one observer and one interviewer) consisted of Census Bureau interviewers and staff from the Bureau and the sponsoring agencies. Approximately five teams were used, each team receiving approximately 30 addresses. Observation forms were completed for each SPA Interview and upon completion of the pretest interviewing, both observers and interviewers were debriefed in a group session. The questionnaires and observation forms were reviewed to detect problems with the interviewer instructions or with the questionnaire. As a result of these pretests, certain modifications were undertaken.

The final pretest interview questionnaire was in fact, almost identical to the 20 minute questionnaire used in the November and December 1982 surveys. As the survey was about to begin, however, funding constraints resulted in the need for revised field procedures. Funds were only available for five minutes instead of 20 minutes of interviewing per month. Therefore, the questionnaires for each of the first 10 months (January-October, 1982) were subdivided into two parts: (1) two minutes of core questions and (2) approximately three minutes of rotating questions from the remaining 18 minutes of questions in the original questionnaire.

Thus, the SPA first provided measures of participation in and attendance at the core arts activities (e.g. jazz, opera). Then, depending on the month of the survey, it examined either participation in other leisure activities; use of mass media for arts-related activities; socialization experiences; barriers to participation; music preferences; or the types of locations at which the arts attendance took place.

The questions dealing with core participation first asked about participation in the previous year, and if this response was positive, then questions were asked about participation in the previous month, and the number of occasions of participation in that month.

Listed below are the more specific data objectives for the various groups of non-core, or rotating, questions administered in the SPA.

1. Life-Style:

These data were intended to put the participation/attendance items in clearer behavioral perspective. To what extent was attendance at arts events more or less prevalent than for other leisure activities, such as sports or hobbies? To what extent do types of activities compete with or supplement each other? What "life-style" patterns were evident in these data and how did these relate to arts participation? The items themselves introduced a wide variety of leisure behaviors that encompassed both indoor and outdoor activities, those done at home rather away from at home, and those with minimal artistic connection and those having some connection (e.g. crafts, poetry, music lessons); thus these latter items represented expanded list of art-related activities.

2. Mass Media:

These data also extend the arts exposure of the American public to include not only those arts events experienced "live," but those seen/heard on television, radio and recordings. These data provide insight into several questions: Is more of the public reached by arts through the media or through live events? Do the media reach larger audiences for certain art forms but not others? Are arts performances via certain media likely to stimulate or compete with attendance at live performances? Regarding television in general, are the heavy viewers of this most time-consuming medium more or less likely to attend arts performances?

3. Barriers to Participation:

This was the most ambitious set of questions in the survey and yet the most important for identifying the potential or the "untapped" audiences for the arts. It first asked respondents whether they had attended each of the seven types of arts events as often as they would have liked in the past year. This was asked of both those who had attended in the past year and those who had not attended. Those respondents who said that they would like to attend more events were then asked about their reasons for not attending more. Their open-ended responses were coded by interviewers into 15 categories. These categories included both "external" reasons, i.e. cost of tickets too high, tickets sold out, transportation or parking problems; and "internal" reasons, i.e. lack of interest, preference for television, or feeling too uncomfortable to attend.

These questions provide not only an examination of what arts performances Americans do attend, but of what they would like to attend if certain internal or external barriers were removed. Might there be a larger audience for events that presently draw small audiences or for those already drawing large audiences? Is there more desire to increase attendance among those who already attend arts performances or among those who presently do not attend? Are those who want to attend more events concentrated in certain demographic segments of the population?

Using these data, it is possible to treat the total U.S. population as being subdivided into four segments:

a) Those who presently attend arts preformances and want to attend more;

b) Those who presently attend arts performances but do not want to attend more;

c) Those who do not presently attend performances yet want to attend, but cannot for various (internal and external) reasons; and

d) Those who do not presently attend and also do not want to attend.

These questions also make it possible to see whether attenders and non-attenders who want to attend more (segments 1 and 3) differ in the barriers which they pergeive prevent participation. Are those who do not attend, for example, more likely to say arts performances are not available to them?

4. Socialization into the Arts:

Many Americans receive first-hand exposure to the arts either through taking lessons and classes (e.g. in musical training or music appreciation) or by their parents having taken them to arts performances. These questions allow one to examine how many American adults have ever been exposed to these socialization experiences, and whether these experiences are related to current arts participation. Is it the case, for example, that the current audiences at arts performances are largely confined to those people whose parents took them to arts performances or to those who took formal lessons in some art form? Are younger adults more likely to have received this type of exposure than older adults; and does this prior exposure have any relation to different attendance patterns that occur among different age groups?

These socialization questions provide information on classes or lessons for six types of arts and crafts and for both art appreciation and music appreciation. These questions also asked about how often respondents remembered their parents having taken them to arts performances and how much parental encouragement they received for independent reading. Respondents also were asked about their parents' level of formal education in order to examine whether parental education _per se_ may have had an indirect effect on current arts participation. These questions have obvious relevance to questions now being raised about how to enhance arts education efforts in public and private schools.

5. _Music Preferences_:

In order to determine more closely the full extent of public interest in certain forms of music, for example, jazz, opera, musical theatre and classical music, respondents were asked whether they liked to listen to these types of music. In order to put these responses in clearer prespective, respondents were also asked whether they liked to listen to several other types of music--e.g. rock, country-western, and easy listening. In order to gauge the intensity of these preferences, respondents were also asked which of these types of music they liked best.

Such questions allow one to observe the extent of overlap between preferences for various forms of music. Are people who like classical music or jazz more or less likely to enjoy country music or rock music? Are there clusterings of different music fans or musical styles, such that people are more likely to "migrate" from one style to another? How do these clusters differ from one demographic segment to another? What proportion of those who say they like a type of music also claim it to be their favorite type of music?

Moving to a slightly different set of questions, how do music preferences relate to attendance at performances of that type of music? What proportion of those who attend jazz or opera performances say that they actually do not like such music? Conversely, of those who like a type of music, how many manage to attend a performance? In other words, how much can be inferred about the numbers of those who actually "like" a form of music from the numbers of those who attend live perfromances of that music?

6. Location of Arts Performances:

Arts performances take place in several different types of locations. People may attend in private facilities (theatres, nightclubs, etc.) or public facilities (schools, parks, etc.), in religious facilities (churches, YMCA's, etc.) or in arts facilities (concert halls, opera houses, etc.). Therefore, those respondents who had attended any arts performances in the previous year were asked in what types of facilities they had seen these performances. Ten types of facilities were categorized into which the interviewer could code responses to these questions. Responses provide some perspective on the extent to which types of artistic performances take place in private, public, religious, cultural, etc. facilities. It is also possible to examine those responses for differences in type of facility by the types of arts performances attended, by the different demographic/geographic segments of the population, and so forth.

To summarize certain applications of the data from the six sets of rotating items the SPA, they are each noted in Table 5, according to their applicability to seven different issues or questions that can be addressed.

Table 5: General Issues and Questions Addressed by the Non-Core Rotating Items in SPA '82

	Life-Style	Media	Barriers	Socialization	Music	Locatio
1. Determine exposure beyond live performances last year	XX	XX		XX		
2. Infer meaning/relevance of attending performances	X	X	XX	X	XX	XX
3. Compare to other audiences and activities	XX	X			XX	
4. Identify potential markets	X	X	XX	X	X	
5. Indicate factors that may determine attendance	XX	XX	XX	XX	XX	X
6. Relate to short-run arts policy questions	X	X	XX	XX	X	XX
7. Relate to long-run arts policy questions	X	XX	XX	XX	X	XX

The various X marks in Table 5 are intended to highlight the major questions that can be addressed with each set of questions in the SPA. Two X's indicate that those survey questions are more directly related to that major question. A single X indicates that those questions are less generally or indirectly related to the major question.

4. Identify Potential Markets Segments for the Arts:

In order to increase the audience reach for the arts, certain aspects of the potential arts audiences need to be identified. The questions that most directly perform this function are the barrier questions, which identify reasons why people do not attend more arts performances. The media and life-style questions indirectly perform this function by identifying segments of the audience that are reached by media programs or that are engaged in other types of relevant activities. The socialization and music questions perform the function less directly by providing links to other experiential, attitudinal or psychographic characteristics of the various arts audiences.

5. Indicate Factors That May Determine Attendance:

What factors determine whether a person will attend an arts performance or not? Almost all of the rotating questions on the SPA can be used to address this question. The life-style factors can indicate whether engaging in certain leisure activities stimulates or inhibits attendance at some types of arts performances more than at others. The media questions indicate whether people who watch an arts-related program on television are more or less likely to attend. The question of perceived barriers provides first-hand responses on why people do not attend more arts performances. The socialization responses can address the issues of whether those who have taken lessons or those whose parents provided contact or encouragement with the arts are more likely to attend. The music responses indicate how much perference for a type of music predicts attendance at a performance of that type of music.

6. Relate to Present or Specific (Short-Run) Policy Questions:

At the present time there are several specific policy questions being raised about government policy toward the arts. The question of how extensive or valumble various forms of arts education or instruction are is addressed by the socialization responses. The questions of whether touring programs are reaching people in areas with fewer live arts events or in less accessible parts of the country are addressed by the barriers and location questions. Insights into how adequately potential audiences for the arts are being reached can be drawn from the music preference and life-style questions. The music questions are also of directly relevant to specific program interests within the National Endowment for the Arts, as are specific aspects of media, barriers and socialization questions to programs in theatre and dance.

7. Relate to Long-Run Policy Questions:

The responses on location can be used for examining whether there is an adequate distribution of facilities that are available for arts performances, and for providing guidance in achieving an optimal mix of public and private facilities. The socialization questions can be used to guide decisions about whether present forms of private and public instruction can reach an adequate segment of the public, or whether to encourage parents to provide arts instruction or support for their children. The barriers questions provide insight into whether the public is being adequately served or whether the public's arts needs may be met or more efficiently supplemented, by supporting arts programs via mass media rather than by directly supporting performing groups. Less directly, the music and preference and life-style questions put the issues of the proper ratio of arts to non-arts activity into clearer perspective.

These represent only a few of the possible questions that can be answered with the SPA, and uses to which the data can be put. We have dealt briefly with the relation of the rotating items to demographic factors and to the core attendance questions. Yet there are many interesting relations that need to be explored between the rotating items themselves. For example, how do socialization patterns relate to music preferences, or to reliance on the media for artistic activities, or to leisure life-style patterns? Do people who are more active in away-from-home activities perceive different barriers to attending arts performances than those people who are less active or spend more time at home or who watch more or less television? Do people who perceive more barriers to arts performances participate in alternative forms of leisure activities?

Thus, the possible list of interrelations is almost limitless. Since the preliminary data have become available, they have been explored to answer several types of policy and theoretical questions. In this report, we cannot hope to examine all possible interconnections. Instead, we mainly confine our analysis within the limits of the general analysis model outlined in Figure 1.

Figure 1 first divides the variables--survey questions--into three broad categories. First are those factors that temporarily precede the time period of core attendance, namely the respondent's background (age, sex, etc.) and socialization experiences. The second set of variables can be conceived of as those that provide intervening experiences between the background variables and arts attendance--such as mass media exposure to arts content, leisure life-style patterns, and music preferences. Finally, we have the arts attendance questions themselves, together with the barriers questions that suggest why people do not attend and the location questions that indicate what types of facilities are used for arts performances. The solid arrows indicate the processes we examine most closely and the dotted arrows indicate the interrelations we examine only occasionally.

We expect that other researchers will be exploring other models and issues in the near future when the data tapes and manuals are available for secondary analysis, and they will examine those models and processes in closer detail. Like the similar study of recreational participation that the Census Bureau conducted for the National Park Service in 1982 and 1983, data tapes and manuals will be available through the major university archival center in the United States -- namely the Roper Center at the University of Connecticut and the Institute for Social Research's ICPSR at the University of Michigan.

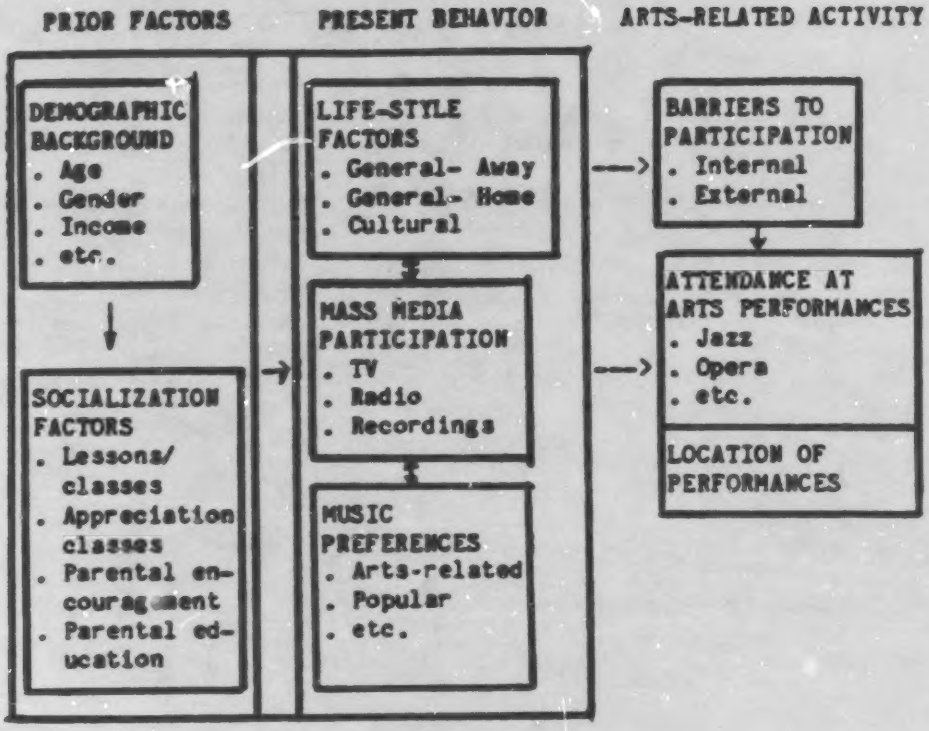
PRIOR FACTORS
PRESENT BEHAVIOR
ARTS-RELATED ACTIVITY
DEMOGRAPHIC BACKGROUND
. Age
. Gender
. Income
. etc.
SOCIALIZATION FACTORS
. Lessons/ classes
. Appreciation classes
. Parental encouragement
. Parental education
LIFE-STYLE FACTORS
. General- Away
. General- Home
. Cultural
MASS MEDIA PARTICIPATION
. TV
. Radio
. Recordings
MUSIC PREFERENCES
. Arts-related
. Popular
. etc.
BARRIERS TO PARTICIPATION
. Internal
. External
ATTENDANCE AT ARTS PERFORMANCES
. Jazz
. Opera
. etc.
LOCATION OF PERFORMANCES

Figure 1: NEA Multivariate Model Showing Major Interrelations Between Variables Investigated in the Report

Additionally, it should be noted that a major factor limiting analysis of these sets of rotating items was that for the most part they were rotating items, i.e. they were not asked on the same survey for all respondents. In fact, the full model can only be examined for the nearly 2700 interviews conducted in the November and December surveys, which were 20 minutes in length. Otherwise, the schedule of rotation questions (as shown in Table 2) limits the degree to which the above questions can be addressed, or the model applied.

Thus, the seven general topic areas in the SPA varied considerably in terms of purpose, segments of the population of interest, and policy considerations addressed. A very detailed set of interview instructions was prepared and sent to interviewers to read prior to conducting their first interview. Those instructions, presented in question-by-question sequence, are given in Section VI of Appendix A.

In order to ensure that interviewers understood the purpose and intention of each set of questions, an interviewer quiz was prepared for the January 1982 survey.

VII. CODING AND DATA ENTRY

After the interviewing and field staff had finished the data collection, the questionnaires were sent to the Census Bureau's main office for clerical checks and to prepare the data for computer processing. The clerical processing of the large survey and SPA data consists of two major operations: the clerical edit and the keying of the data to magnetic tape.

The main purpose of the clerical edit is to locate and correct any interviewer errors and, when possible, correct areas of respondent misunderstanding or inconsistencies in order to improve the accuracy and quality of the data. A statistical quality control plan was employed in order to ensure an acceptable level of quality of the editing and coding operation. Initially, each clerk's work is completed and verified until it is shown that the clerk is capable of performing acceptable work. Subsequently, a random sample of the documents in each work unit is verified to ensure that the quality of the work does not deteriorate. Keying was verified 100%, with the entire workload rekeyed by another keyer, compared to the original with all keying errors corrected.

With a few exceptions, the questions on the Survey of Public Participation in the Arts were closed-ended questions of the "yes-no" type. Some open-ended follow-up questions were asked, e.g. on reasons for not attending certain types of performances, but responses to these questions were immediately coded by the interviewer; those few responses (less than 500 total) that did not fit into these categories were subsequently coded into existing or new categories at the Census Bureau by Survey Research Center (University of Maryland) coders.

Once these supplemental codings were completed, all forms were sent to the Census Bureau for keypunching and verification. They were then transferred to computer tape with appropriate weighting (see Section V below) and demographic background information for each respondent; the tape was then sent to the University of Maryland for initial tabulations and analyses.

One piece of information not on the University of Maryland tape was the geographic region in which the respondent lived. The reason for this omission was that inclusion of such data could make it possible to provide information on specific respondents in the survey — a situation which violated the strict rules on respondent confidentiality which the Census Bureau is required to follow as a government data collection agency. Therefore special computer runs had to be conducted at the Census Bureau for variations in responses by geographical factors. Weightings were for age, gender and race categories to ensure each of these groups were represented in their true population proportions.

1. Coding Open-Ended Responses

After the 1982 interviewing was completed and the questionnaires were sent from the field service to the Census Bureau in Suitland, Maryland, personnel from the University of Maryland were sworn in as special employees of the Census Bureau to examine the questionnaires and listed open-ended responses in the questions dealing with music preferences, participation barriers, and locations of arts performances. While a few new categories were formed from these open-ended responses (e.g., music of particular ethnic groups), most could be fit into the existing categories. For example, in the music preference question Dixieland music or "fusion" was coded as jazz (category 4). In the barrier questions lack of interest in an arts form was coded as lack of motivation (code 14), and lack of money as cost (code 2). In the locations questions, listening to music at a music camp was coded as park or open-air facility (code 10).

The University of Maryland coders also made decisions about ambiguous responses or situations encountered by interviewers in the closed-ended questions (for example, when respondents said they had attended a high school play that included some professional performers, or when they heard a popular musical group that played some classical music or some jazz).

After the twelve months of interviews were coded and rechecked for accuracy, the questionnaires were sent to the Census Bureau's data processing facility in Jeffersonville, Indiana, in the early months of 1983.

2. Data Keying

The coded data were keyed on a key-to-disk device. For control and quality control purposes, work units of approximately one hundred questionnaires each were keyed. A statistical quality control plan was employed in order to ensure an acceptable level of quality of keying. Initially, each keyer's work was verified completely until it was shown that the keyer was capable of performing acceptable work. All keyed responses were 100% verified.

3. Computer Processing

Upon completion of keying and verification, the data for each work unit was ready to be put on tape for computer processing. With the receipt of the tape file of keyed questionnaires, computer processing was initiated. This processing was divided into four stages:

1) A pre-edit or correction stage in which significant interviewer and clerical errors were detected and corrected;

2) A secondary edit stage, which checked the data for plausibility and conformity to questionnaire skip patterns;

3) Weighting tape preparation, to show all weighting and recording necessary to produce the final tabulations;

4) Creation of the final tapes

Once the SPA data were keyed, they were merged with the relevant household data from the larger survey on the demographic factors, excepting geography, and that tape was sent to the Survey Research Center at the University of Maryland in College Park. Personnel at the Center then:

1) Unblocked the tape to match UNIVAC machine language; and

2) Created an SPSS program to:

   . match the format of the data to SPSS format,
   . write descriptive titles for each variable,
   . designate missing values for each variable, and
   . transform the program into systems files.

Since more than 500 variables were involved, the file had to be divided (archived) to enable the University's SPSS system to process it.

VIII. WEIGHTING PROCEDURES

The data for each month of the Survey of Public Participation in the Arts have been weighted to reflect the civilian-noninstitutionalized population 18 years old or older. Use of the weights is important because weighted data provide more accurate estimates than the unweighted counts of the population sampled, especially when the modest sample sizes of the SPA are considered.

There is a large variation in the lowest and the highest weights assigned to the sample cases. For example, the September SPA weights for individual respondents range from representing approximately 5,500 people to 724,300 people. As shown by these ranges, estimates derived from the unweighted data can be significantly different from those derived from the weighted data and could lead to erroneous conclusions.

The cases for the SPA survey are also weighted to the entire U.S. population (civilian and noninstitutionalized) by month[*].

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[*] The weight assigned to a person in SPA for a single month is equal to the following product:

(BASIC WEIGHT) X (ADJUSTMENT FACTORS WITHIN SPA NONINTERVIEW) X (SECOND-STAGE RATIO ESTIMATE FACTOR)

where the:

1. BASIC WEIGHT OF A PERSON = Final survey weight for the person X 36 (Since SPA is only 1/36 of full sample for the larger survey)

and the:

2. WITHIN SPA NONINTERVIEW ADJUSTMENT FACTOR for the SPA sample persons is computed for persons interviewed in the larger survey who were not interviewed for the SPA.

and the:

3. SECOND-STAGE RATIO ESTIMATION FACTOR is also the same as for the large survey.

Thus, each month's SPA data can be used to examine between-month differences in common data items and for estimation of portions of the data that were only collected for several months.

The weights assigned to the SPA cases are based on several factors. The first of these is the final larger survey person weight. This weight is the reciprocal of the sampling rate of the monthly larger survey population, adjusted for nonresponse, and aligned to population estimates by age, race, and sex. This adjusted weight is then multiplied by the reciprocal of the subsampling rates for the SPA, as applicable, since only part of each month's larger survey sample was used. At this point, the weighting procedure is tailored to the SPA survey.

The SPA person noninterview weights are used to modify the weights in the same manner as with the larger survey. These weights are again adjusted to age, race and sex population controls. Additionally, the same basic procedure is used for the SPA household weight which is derived from the final larger survey household weight. Because the SPA household weight is assigned to all SPA person records for a particular larger survey household, a separate variable must be used in conjunction with the household weight to avoid multiple counting of the household weights.**

** This variable is labelled "Household Counter" in the tape documentation and is located in word 15, digit 2 of each SPA record. The variable's three possible values are "0", "1", and "2". Only one person's SPA record in each NCS interviewed household contains a "1", with all other SPA records for that NCS household, if present, containing a value of "0". SPA records for large survey Type A noninterview households contain a value of "2" for the variable. Thus, if SPA household estimates are desired, only records with a value of "1" in the "Household Counter" variable should be. This value of "1" is assigned to the first person processed within each household and is not determined by the person's relationship within the household.

Also, one must divide the weights assigned if analysis of more than one month's SPA data is desired. The factor used to divide the weights is always the number of months for which data are being combined for analysis.

1. **Determine Exposure to Arts Beyond Attendance of Live Performances:**

What is the number of people (or percent of the population) who watched an arts performance on television, or who attended a poetry reading, or did creative writing or whose parents ever took them to an arts performance? These are the issues mainly addressed by the media, life-style and socialization questions, as is indicated by the double checks in the first row of Table 5 for these question areas.

2. **Infer the Meaning or Relevance of Attending Performances:**

These are the survey questions that provide insights into, or other additional information about, arts performances themselves, such as the location at which it took place or the potential audience that might have been reached. Thus the major questions that perform this function are the location, music and barrier questions; the barrier questions also provide information on the reasons people who did not attend gave for non-attendance. The life-style, media and socialization questions also give indirect information on the meaning of alternative data by comparing these levels to other levels of activities or to levels in other time periods.

3. **Compare Arts Audiences to Non-Arts Audiences and Activities:**

Here one can contrast arts audiences with other audiences, or contrast the number of participants at arts performances with the number of participants in other leisure activites. One can compare not only the size of these audiences, but their demographic composition as well. The major questions that perform this function are those dealing with life-style and music preferences, which allow researchers to compare the audience for jazz with the audience for rock music, or with the population of movie-goers. The media questions also do this indirectly by comparing all TV viewers with those viewers who use television for arts content.

The use of the SPSS package for the analysis of the SPA data puts a restriction on the use of the assigned weights on the public use tapes. The restriction occurs when printing the output from any SPSS procedure. Since SPSS output only allows nine significant digits, one must first round the weights to the nearest whole number before using the SPSS programs. This rounding occurred immediately following division by the factor for the appropriate number of months, or in place of this division if only one month's data were analyzed.

IX. METHODS OF STATISTICAL ANALYSIS

The arts participation data collected in the Survey of Public Participation in the Arts were subjected to several types of statistical analyses. These ranged from simple tabulations to complex multivariate analyses.

Among the techniques employed were:

1. Simple tabulation of the number of responses to each question. How many of the 17,254 respondents in the survey said they attended an opera? Or, of those asked how many said they liked to listen to jazz -- or had taken music lessons?

2. Simple percentages of respondents giving various responses to each question. What percentage of respondents said they went to an opera or had ever taken a music lesson? Simple tabulations of responses are of limited value, without reference to some base figure or denominator. The most common and useful base is the percentage, calculated as the number of respondents going to the opera divided by the total number of respondents. Percentages make it possible to compare responses to questions across groups or across surveys. In the present survey, for example, some questions were asked of all 17,254 respondents, while others were only asked of a third or a quarter of these respondents; these responses can only be compared on the basis of percentages.

3. Weighted percentages of responses to each question. What percentages of respondents -- weighted to be representative of the entire population -- went to an opera or took a music lesson? In the present sample, it was not possible to ensure that precisely correct proportions of males, blacks, or elderly people were included. If the proportion of males included were only 44% and the Census Bureau estimates that 48% of the popu-

lation is male, then the male responses need to be weighted by 48/44 = 1.09 to be sure that males are included in their true proportion. Such weightings were performed on the present sample by attaching a group weight to each respondent in the sample.

4. Sampling errors for responses. All surveys are subject to variability simply because only a sample and not a population is interviewed. It is possible (but not probable if the sample is large) that a sample could, by random fluctuation contain too many opera-goers or people who like jazz music than is true in the population as a whole. Some error statement needs to be attached to population proportions to reflect this margin of uncertainty. These error factors are calculated using statistical formulas and calculations from the sample itself -- namely by dividing the sample in half at random several times and observing how much proportions vary across these different samplings.

5. Population projections of responses to each question. How many million people in the United States' overall population say they attend operas or enjoy jazz music? This can be calculated (with appropriate sampling errors attached) simply by multiplying the weighted percentages by the adult population figure for the entire U.S., namely the 164+ million adults who were estimated to be living in this country in 1982. These projections are subject to the same sampling errors noted above.

6. Cross-tabulations (weighted) of arts-related responses with other survey variables. This allows one to see whether respondents who say they have been to an opera are more likely to be male or female, or young or old, or more or less likely to attend other types of arts performances. The approach involves a different level of analysis since two variables are being examined, not just one. In essence, it can be seen that what is in-

volved is a separate set of frequencies or percentages for each demographic group, e.g., one set for males, one set for females. In order to state whether the two variables are related to one another, several options are available: comparison of percentages, depiction of these percentage differences by bar charts or other graphic forms of comparison, or use of summary measures of association or correlation between the two variables (see point 8 below). Cross-tabulation allows the policy maker to locate segments of the population that are high or low in arts attendance or to see whether groups participating in one arts activity also participate in another.

7. Adjusted cross-tabulations take into account the fact that other variables may affect the two-variable cross-tabulation. This approach allows one to examine whether any differences between men and women, say in attending the opera, are, in turn, due to other factors that differentiate men and women -- age, income, occupation, etc. A descriptive example of statistical technique that provides such adjusted figures, called Multiple Classification Anaylsis, is given in Section XI of this chapter. The value of these adjusted numbers is that unadjusted numbers give an oversimplified picture of actual situations. It makes limited sense, for example, to talk of general differences between blacks and whites (or men and women) in America, when the two groups differ so widely on socio-economic or age factors. Adjusted figures convey that meaning much more clearly.

8. Measures of association, correlation or "overlap". Measures of association or correlation attempt to convey the strength of a relation between two variables in a cross-tabulation in a single standardized number, ranging between 0 (no association) and 1.0 (perfect association).*

If, for example, 3% of men and 3% of women attended opera, then the correlation measures between sex and attendance should be 0, or close to 0. If 100% of men and 0% of women attended opera, then the correlation would usually be 1.0 or close to 1.0. Very few associations in survey data come close to 1.0, or even exceed coefficients of .25.

These correlation measures thus offer a useful perspective on the degree of "overlap" between arts attendance variables. In the same way that we examined the overlap between sex and attendance in the above paragraph, we can use these coefficients to gauge the extent of overlap between attendance variables. If 3% of the opera goers go to jazz performances and 3% of the non-opera goers also go, then the overlap between opera and jazz attendance is only what would be expected by chance and so the correlation is zero. On the other hand, if 100% of the opera-goers go to jazz performances and 0% of non-opera goers go, then the overlap is perfect and the correlation is +1.0.[*] If no opera goers go to jazz concerts and 100% of non-opera goers go, then there is no overlap in attendance and the correlation is -1.0.

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[*] These coefficients are given + or - signs depending on whether the two variables both increase together (positive sign) or go in oppo- site directions (negative sign). It should be noted that there are several correlation coefficients, each with different assumptions and formulas, and some of these are discussed below.

There are alternatives to the correlation coefficient, based on the "odds ratios" that are coming into increasing statistical usage. These odds ratios are calculated simply by dividing one set of odds by another. If, in the above example, 3% of the men and 3% of the women go to the opera, an odds ratio of 1.0 (3 divided by 3) is obtained; if 1% men and 50% women go, an odds ratio of 50.0 is obtained. Odds ratios are simpler to calculate and understand than correlation coefficients, but they are less familiar and standardized for statistical analysis. They cannot be used with well-developed techniques for clustering large sets of variables (as in this study), such as for the factor analysis method described in the next section.

9. Clustering and Factor Analysis (Multidimensional Scaling) of correlation coefficients. Several analytic techniques for making it easier to examine the relationship (clustering) between several sets of variables come under the title multidimensional scaling. If one is examining 10 variables, for example, the number of cross-tabulations involved is 45. That means that an analyst would be required to sort through 45 separate cross-tabulations, comparing and cross-clustering each of them to summarize the results. If the number of variables is 20, the number of cross-tabulations involved is 190; for 40 variables, 780 cross-tabulations are needed. There is no simple or effective way to deal meaningfully with such quantities of data simply by using cross-tabulations.

Perhaps the most widely-used technique for reducing large numbers of variables to a minimal number of basic factors, dimensions, or typologies is factor analysis. Factor analysis was developed to generate such basic dimensions using the correlation coefficients as the basic measure of the strength of the relation between variables. A detailed example of how the technique can be employed and the dimensions or clusters it generates is given in the next section.

Factor analysis results can be used in several ways. One can examine graphic plots of the variables in the "space" that is generated and pick out clusters of variables that go together. Or, more traditionally, one can use the factors or dimensions that are suggested to group related variables on that basis. If the factor analysis were, for example, to show opera and classical music on the same factor and jazz, rock, and big band music on another factor, then one has some justification in creating summary measures (or indices) of two separate music factors -- one for traditional (or enduring) music and one for popular (or more up-tempo, louder, or more current) music.

10. Constructing indices that summarize several related variables. Once one has identified sets of questions or variables that can be related, there are efficiencies to be gained in creating an index to summarize those variables. The simplest method of indexing is to assign one "point" for each variable on the dimension which the the respondent gives a positive response. For example, if a respondent says she likes rock and big band music, she receives a score of two on the index of "popular" music; if another respondent says he attended a classical music concert and a ballet, he would receive a two on an index of arts attendance. More precise indices could be constructed by using the factor weights for each variable prescribed by the factor analysis or by using the weighting schemes.

The value of indices is that they summarize responses to several questions with a single score. In Chapter 3, for example, we create a single index of arts attendance based on responses to seven separate questions. Instead of having to examine seven different questions, this allows us to examine one score to obtain a clear overall perspective on all facets of attending arts events; e.g. what groups in the population (or areas of the country) are more or less active in arts participation in general? What groups are more or less interested in traditional or popular music?

11. Multiple regression analysis to construct predictive models of participation or other indices. As an overall summary statement of the results of the above procedures, multiple regression answers the question, "What are the most important factors in predicting whether one goes to the opera or likes jazz music?" Or if one projects a particular age distribution or income distribution in the future, what effect might that have on opera attendance?

Unlike factor analysis, regression analysis requires the analyst to focus on one particular "dependent" variable, be it arts attendance, media usage, or liking music. It is especially efficient to conduct such regression models with a summary index of some set of variables as the focal point.

In Chapters 5 to 9, index measures of mass media participation and socialization experiences are used to predict an index of arts attendance constructed in Chapter 3. In other words, it becomes possible, with regression analysis, to reduce an almost unlimited set of possible cross-tabulations to a few summary tables that allow one to gauge, almost in one handy format, whether a particular factor is likely to make much of a difference in arts participation.

X. MULTIPLE CLASSIFICATION ANALYSIS (MCA)

There is a very large number of variables in the Survey of Public Participation in the Arts: the ten core attendance items (Chapter 3), the 26 life-style participation items (Chapter 5), the 17 media participation items (Chapter 6), the 14 socialization items (Chapter 7), the seven participation barriers items (Chapter 8), the 13 music preference items (Chapter 9) and the performance location items (Chapter 10). In addition there are well over 20 variables related to each respondent's general social and demographic background.

Cross-tabulation is the most straightforward and traditional way of showing the interrelation of such items in a social survey. However, in the case of the over 100 variables in the Survey of Public Participation in the Arts, that would involve over 5,000 of these cross-tabulations -- an extraordinary number both to process and to display. Moreover, it is an inordinate number to comprehend or to put into larger perspective, particularly since many of the variables are closely or subtly tied together, (e.g. attending concerts is related to attending the ballet; education is tied to annual income or geographical area).

To put these data in a clearer and broader perspective, we have employed a statistical technique called Multiple Classification Analysis (MCA), which was developed by Andrews, et al.(1973). MCA was developed for efficient analysis of multiple variable data sets like that collected in the SPA. It can show the interrelations between variables as effectively as a single cross-tabulation, and it can further show the results of cross-tabulations with related variables at the same time. It can convey the same incisive conclusions as multiple regression analysis or analysis-of-variance (ANOVA) techniques, but in a way that can be easily comprehend-ed by anyone familiar with the logic of a cross-tabulation.

An Example:

The example provided in Tables 6 to 8 is intended to illustrate the logic and power of MCA. The example uses attendance at musicals as the variable to be predicted (called the "dependent" variable), and it examines how well the respondent's education and race (the "independent" variables) can be used to predict such attendance. As shown in Chapter 3, some 19% of the respondents in the SPA reported attending a musical stage play in the previous 12 months. The cross-tabulation of attending musicals by education as given in Table 6 shows that such attendance varies widely by that factor: only 4% of those with a grade school education reported attending a musical (i.e. 96% did not attend) and only 6% with some high school education attended. Yet attendance was about 9 times as high (45%) at the other end of the education spectrum -- those with graduate school education. In other words, respondents with graduate school education are almost 9 times as likely to say they attend musicals (45%) as those with less than a high school degree (about 6%).

There are also large differences in attending musicals by race, as shown in the bottom (second) cross-tabulation in Table 6. Some 20% of all white respondents reported attending musicals in the last 12 months, compared to 10% among blacks and 13% among respondents of other minority racial backgrounds (Asian Americans, Hispanics, etc.). Thus, white attendance exceeded black attendance by 10% and "other" racial group attendance by 7%.

Table 6, then, contains two independent cross-tabulations, one for education and one for race. However, the two predictor variables of race

Table 6: The Relationship of Musical Participation Rate to Education and Race

a) Education:

		Attend		Not Attend		Total
Grade School	(2,067)	4%		96%	=	100%
Some High School	(2,238)	6		94	=	100
High School	(6,494)	14		86	=	100
Some College	(3,348)	27		73	=	100
College Graduate	(1,795)	37		63	=	100
Graduate School	(1,300)	45		55	=	100
TOTAL SAMPLE		19%	+	81%	=	100%

b) Race:

		Attend		Not Attend		Total
White	(15,167)	20%		80%	=	100%
Black	(1,673)	10		90		100
Other	(403)	13		87		100
TOTAL SAMPLE		19%	+	81%	=	100%

and education are not independent of each another. Both blacks and other minority racial groups in the country have less formal education than the white population. That raises the question of how much of the racial differences in attending musicals are indeed tied to race and how much these are a byproduct of the educational differences that exist between these racial groups.

One way to examine this question is to cross-tabulate attendance at musicals by education separately for each racial group. These separate tabulations are shown in the last three columns of Table 7. The first column in parentheses shows the same overall differences by education presented in Table 6a. The second column shows these same differences but only for the white respondents in the survey; the third column shows results only for black respondents and the fourth column for respondents of "other" racial backgrounds. Note the percentages at the bottom of each of the last three columns: they equal the 20% white attendance 10% blacks attendance and 13% "others" attendance, found in Table 6b.

The racial comparisons between columns 2 and 3 of Table 7 are now more precise because they contrast whites and blacks with the same educational level. Grade school educated blacks are compared with grade school educated whites, and grade school educated persons in "other" racial groups, and so on for each educational level.

As might be expected, the overall racial differences of ten percentage points between whites and blacks is reduced considerably within most categories of education. Some 3% of grade school educated blacks attended musicals compared to 4% of grade school educated whites, a point difference of only 1 point, not 10 points. Similarly for high school graduates, the difference is only 5 percentage points, and not 10 points. The racial

Table 7: Cross-tabulation of Musical Participation Rate by Education for Each Racial Group

	(All Respondents)		Attended Musicals Whites	Blacks	Other	Differences White - Black		% of Sample		
Education:										
Grade School	(4%)	(4)	4	3	4	+ 1	X	.12%	=	.12
Some High School	(6)	(6)	7	3	0	+ 4	X	.13%	=	.52
High School	(14)	(14)	14	9	8	+ 5	X	.38%	=	1.90
Some College	(27)	(27)	28	19	16	+ 9	X	.19%	=	1.71
College Graduate	(37)	(37)	39	29	20	+10	X	.10%	=	1.00
Graduate School	(45)	(45)	46	33	22	+14	X	.08%	=	1.12
TOTAL	(19%)		20%	10%	13%			100%		6.37

differences for the six education groups in order are 1, 4, 5, 9, 10, and 14 percentage points. These differences average 6 percentage points after weighting for the different size of each educational group (shown in the second to last column of Table 7).

In other words, when we take the step of comparing racial groups with the same educational level, the original 10 point gap between whites and blacks in Table 6 reduces to an average of only 6 points. (When calculated the same way, the difference between whites and "other" races increases rather than decreases, with whites averaging a 10% higher participation than persons in other racial groups when education is controlled for, compared to the original, unadjusted differences of 7%.)

That is the same analytical logic and approach that is employed in Multiple Classification Analysis. While the MCA procedure does not show the inner details of the separate Table 7 breakdowns, it does show the same end results -- the 10 percentage point difference (20% white vs. 10% black) in Table 6 is reduced to an average of 6 points (20% white vs. 14% black) after controlling for differing educational levels among blacks and whites. Results of an MCA analysis are generally presented in the format appearing in Table 8.

The analyses in Table 8 represent a very simple application of MCA to only two variables (race and education). However, the world of arts participation and attendance, like other forms of human behavior, involves far more than two or three variables. The unique value of MCA is realized when one uses the technique to separate the effects of not just two but three, five or ten factors that affect participation.

Adding a third independent variable:

Table 8: Display of MCA Results for Musical Participation Rate for Education and Race

	Before Adjustment	After Adjustment
Overall Attendance	19%	19%
Education:		
Grade School	4%	5%
Some High School	6	6
High School	14	14
Some College	27	27
College Graduate	37	38
Graduate School	45	45
Race:		
White	20%	20
Black	10	14
Other	13	10

Take, for example, the factor of income. Attending musical performances, particularly musicals, can cost 10, 20 or even 50 dollars. Obviously people with higher incomes can find it much easier to attend outlays of discretionary money than less affluent individuals do. How much does income account for the educational or racial differences in Table 6? Table 9 shows the separate two-way cross-tabulation for income and education, like the Table 7 cross-tabulation of race and education.

The bottom of Table 9 shows that there are substantial differences in attendance at musicals. These differences by income level are almost as large as the differences by educational level shown in Table 6 — from 4% of grade school graduates to 45% for those who had graduate school education — from 10% attendance for these with less than $10,000 annual income to 44% among those with $50,000 or more annual income.

But the entries in the body of Table 9 show that within separate educational categories these income differences are not as great as they are overall. For example, in the first row of Table 9, we find that only 6% of the grade school educated with $50,000 annual income attend musicals, compared to 5% for all grade school only educated. Similarly, only 7% of those in the "some high school/ $30-49,000" category attended musicals, compared to 6% of all respondents with some high school. In fact, the only income group that attends musicals well above average for each educational category is that over $50,000. Increasing income up to this point does not seem to predispose attendance at musicals.

At the same time, the education differences within each column of income categories remain very substantial. That indicates that it is the higher education of those with higher incomes that accounts for the large income differences in Table 9, and not something about income itself that

Table 9: Cross-tabulation of Musical Participation Rate by Education for Each Income Category

	TOTAL (All Respondents)	FAMILY	INCOME			
		Under $10,000	$10,000-14,999	$15,000-19,999	$20,000-29,999	$30,000-49,999	$50,000 +
Education:							
Grade School	(4%)	1	3	5	7	10	6
Some High School	(6)	4	3	8	7	7	25
High School Graduate	(14)	6	8	12	13	19	26
Some College	(27)	30	22	17	24	30	50
College Graduate	(37)	40	23	34	27	43	49
Graduate School	(45)	37	34	29	41	46	58
	-----	--	--	--	--	--	--
TOTAL	(19%)	10%	9%	13%	17%	28%	[illegible]

predicts attendance at musicals.

The same difference between the predictive power of the income and education factors can be observed more concisely in the income differences shown in Table 10. The differences by income level are reduced considerably after MCA adjustment. The differences by educational level are not. As in Table 9, education emerges as the most prominent predictor of attending musicals, even after taking both income and racial differences into account.

Graphic Portrayal of MCA Results:

Many of the MCA results like those in Table 10 have been presented in this report in graphic form. An illustration of these graphics is given in Figure 1 to show the relation between attending musicals and education, race and income. The bar chart shows the sample (unadjusted) increases in attending these performances by education, from 4% attendance for those with grade school education to 6% of those with some high school to 14% among high school graduates to 27% of those with some college to 37% of college graduates to 45% of those with graduate school education. That is the increase we find with education before adjustment, as shown by the height of the bars in Figure 1.

However, higher-educated people differ on demographic factors besides their formal education: having generally higher incomes than less educated people and having access to higher paying jobs, for example. College education is also related to race, so one might well expect that the increases in musical attendance reflect the lower likelihood of college educated people being black.

Adjusting the education differences in the Figure 5 bar chart to con-

Table 10: Display of MCA Musicals Attendance by Education, Race and Income

	Before Adjustment	After Adjustment
Overall Participation Rate	19%	19%
Education:		
Grade School	4%	7
Some High School	6	9
High School	14	14
Some College	27	26
College Graduate	37	34
Graduate School	45	31
Race:		
White	20	20
Black	10	15
Other	13	8
Income:		
Under $10,000	10	16
$10 - 14,999	9	14
$15 - 19,999	13	16
$20 - 29,999	17	17
$30 - 49,999	28	24
$50,000 +	44	35

trol for the influence of these other related factors results in the (adjusted) values shown with a dot |•|, in each bar in Figure 1. These adjusted values reflect what the percentage attending musicals for each group would be if each education group were equivalent in terms of income and race. The |•| in Figure 1 for the grade school educated, for example, is slightly higher (7% - 4% = 3%) than prior to adjustment. That indicates that grade school educated are still less likely to attend musicals than higher educated people, even taking into account their lower income, or greater likelihood of being black. The figure for those with graduate school education is similarly lower (31%, vs. 45%) than it was prior to adjustment. We have also already noted how the raised differences decline after adjustment.

The same is true for the factor of income. Note how flat the distribution of dots cluster around the 16 - 17% figure after adjustment, indicating that income below $30,000 per year has virtually no relation to attendance. There is some increase for the $30,000 - $49,999 category to 24% and then a larger climb to 35% for those with over $50,000 reported annual income. But for the majority of the population earning less money, income _per se_ seems unrelated to attendance.

How MCA is Used in This Report:

The use of MCA in this report is generally for global descriptive purposes rather than for in-depth analysis. That is, we use MCA to identify those factors that remain the most important predictors of arts participation after other factors are taken into account. It is also used to identify factors whose relation to participation may be "suppressed" by other factors, as in the case, for example, when women have lower participation

Figure 1

ATTEND MUSICALS BY RACE

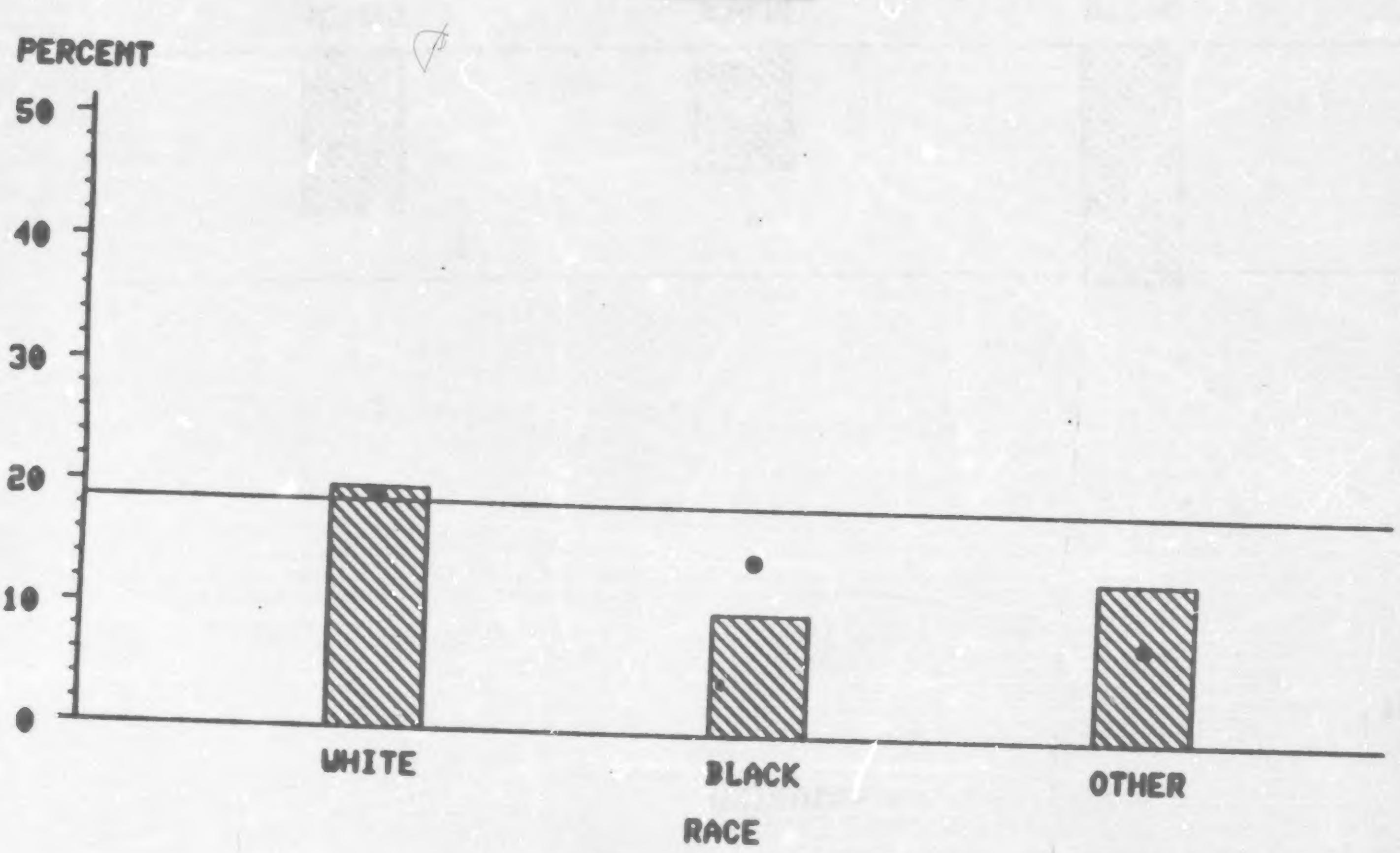
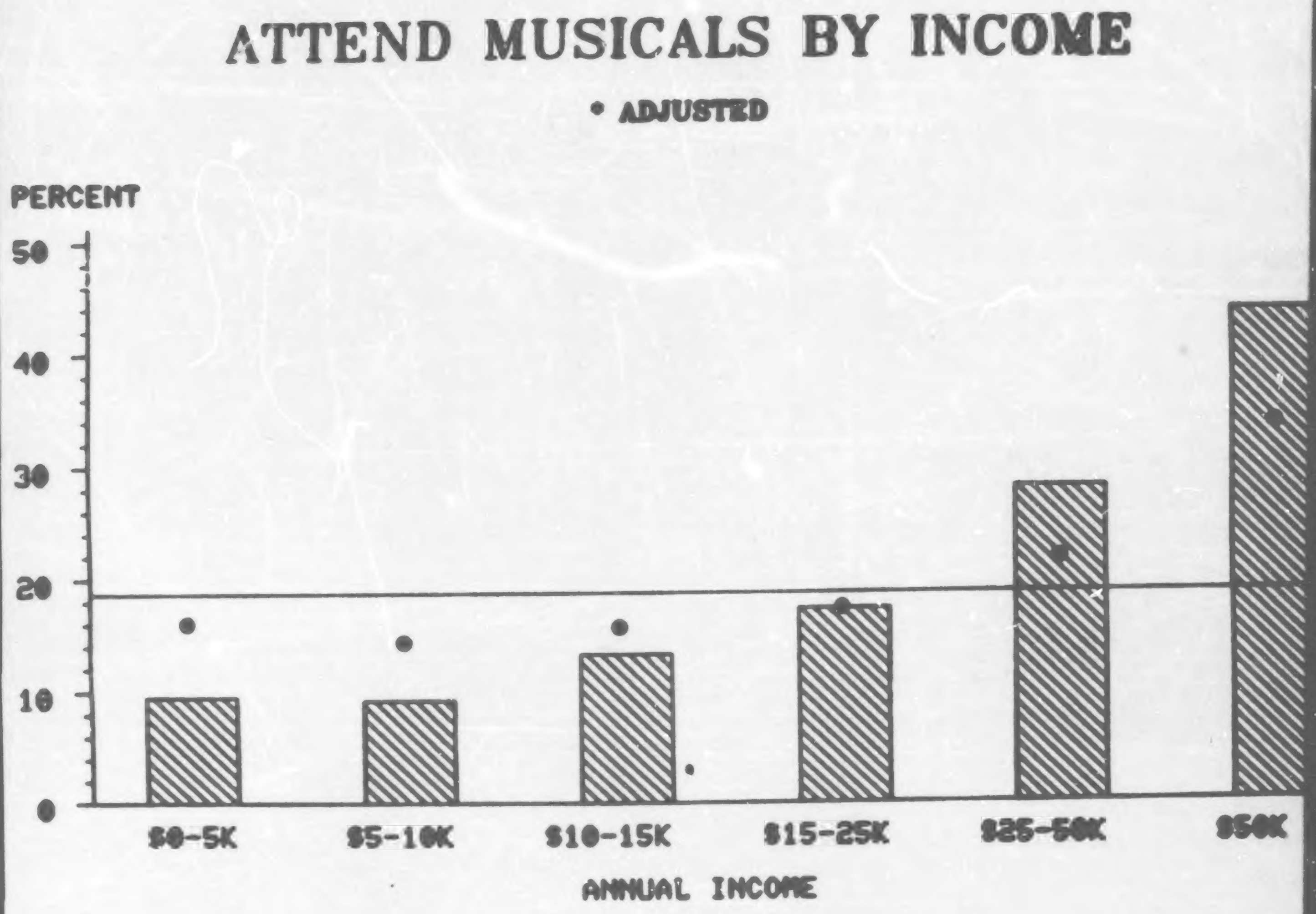
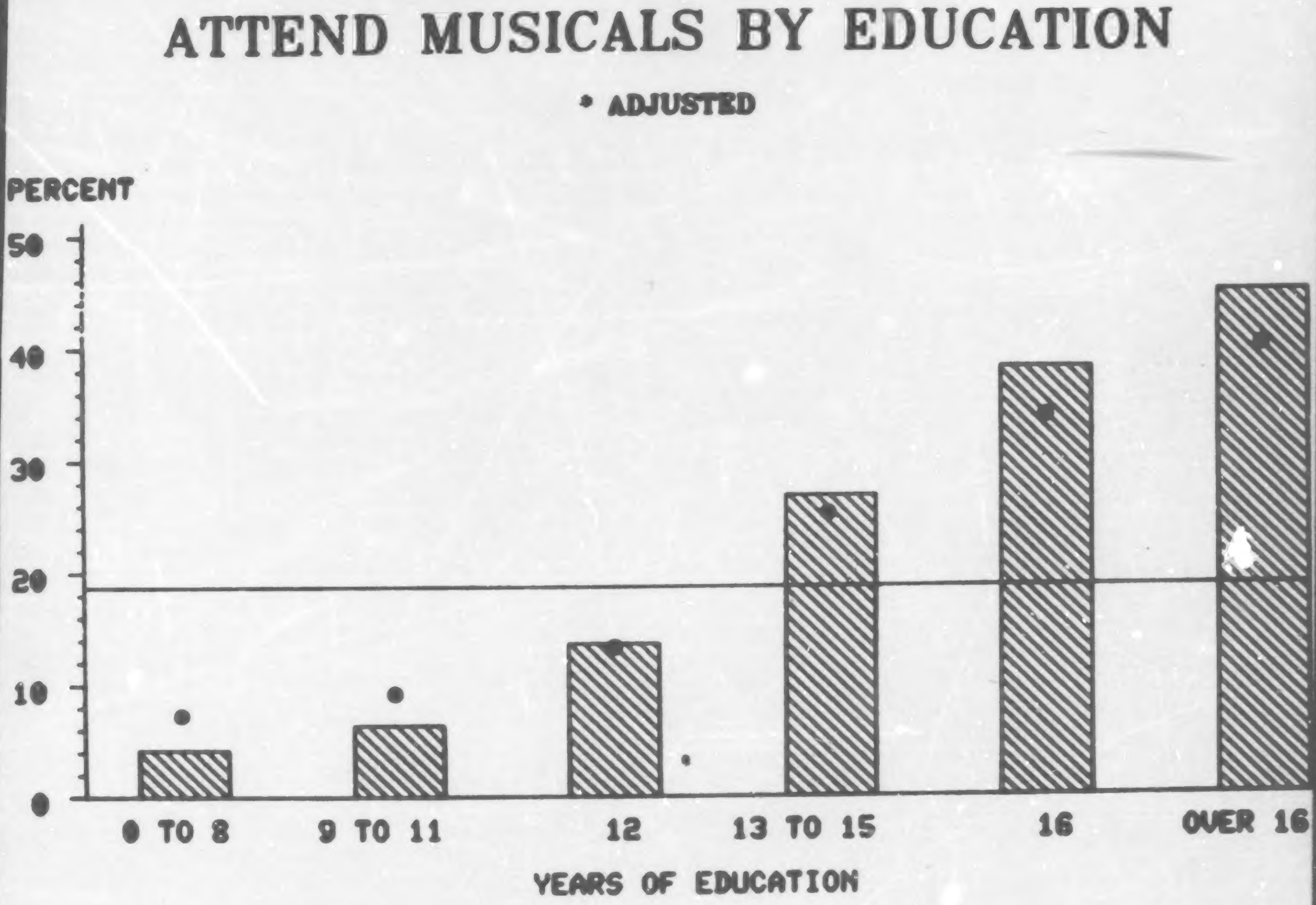


Figure 1


ATTEND MUSICALS BY INCOME
● ADJUSTED
PERCENT
50
40
30
20
10
0
$0-5K
$5-10K
$10-15K
$15-25K
$25-50K
$50K
ANNUAL INCOME

Figure



ATTEND MUSICALS BY EDUCATION

because they are older or have less education than men.

The present analysis is intended to identify effective predictors of arts participation, but it will not determine why various results change after adjustment. While it is possible to use MCA to analyze such dynamics, the large number of arts participation variables of interest in the SPA make such an ambitious and time-consuming effort beyond the scope of the present report.

Another technical aspect of the MCA analysis presented in the report concerns the reporting of statistical significance. As of this writing, there is no acceptable, straightforward method of arriving at the complex sampling error figures necessary to conduct tests of statistical significance for MCA results properly. Calculations are provided in the analysis of what the overall significance of particular variables are, but there are two problems with these significance figures:

1) Because the SPA sample sizes involved are large (particularly after the data are weighted to project population estimates), virtually all (or well over 90% of the variables emerge as statistically significant beyond the .001 level of chance.

2) These figures refer only to the overall variable and not to particular categories within that variable. For example, we may find that age is a significant predictor, but we do not know if that is because of the differences for the older age category, the younger age category or the middle age category; in the case of race, we do not know if it is the white sample or or the black sample or the other sample that is significantly different.

Nonetheless, with the MCA results we can identify the specific categories that are high or low before and after adjustment -- and those that are on the same comparative scale. These statistics can be immediately understood by a non-statistician. These are communicable features that are not available on other regression or multivariate analysis programs of which we are aware.

XI. FACTOR ANALYSIS (CLUSTERING)

The process of discovering basic dimensions or clusters of variables is accomplished in a very straightforward manner by factor analysis. Factor analysis provides an objective basis to construct indices or summary measures. The mathematical foundations of factor analysis are too complicated and technical to be described in this report. The interested reader can find such exposition in several textbooks that have been devoted to the topic (Harman 1965; Russett et al. 1972). But the main values and outputs from factor analysis for policy analysis purposes can be described briefly as follows.

Factor analysis basically assumes that each variable exists in a position in a space of many dimensions. Factor analysis attempts then to discover and map the dimensions of that space and where the variables fit in that space according to the available observed data. With no other information other than the correlation of each variable with every other variable, and with no indication of what these variables are or how they logically should cluster together, factor analysis programs generate a series of dimensions that seem to best describe the multidimensional space in which these survey variables are located.

For example, assume we had the simple case of four variables related to jazz vs. classical music and listening to that music either on radio vs. watching it on TV. That leads to four basic variables: 1) watching jazz on TV, 2) listening to jazz on the radio, 3) watching classical music concerts on TV, and 4) listening to classical music on the radio. There are several possible ways these variables could be clustered in reality: by type of music, by type of media, or by some other criteria. What factor analysis can do is to uncover the criteria or dimensions on which they do cluster, given the pattern of correlations that are observed between the four variables.

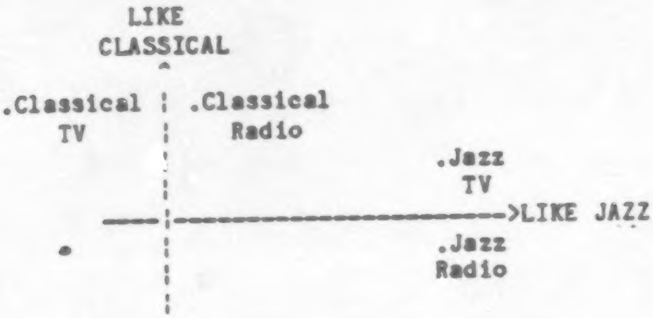
As one example, assume that the music-liking population basically divides itself into those who like jazz and those who like classical music, both of whom follow their favorite forms of music avidly on both radio and television. In other words, there is a strong correlation (overlap) between enjoying jazz programs on television and on radio; and a strong correlation between enjoying classic music on radio and on television. That high correlation means that watching jazz on TV and listening to jazz on the radio are relatively close to each other in the multidimensional space and watching music performances on TV and listening to classical music on the radio are also relatively close. But neither of these two music clusters is close to each other.

Assume further that people who like jazz don't like classical music and vice-versa. That would lead to the four variables being described in the following single dimension:

```
                     .TV                            . TV
DON'T LIKE JAZZ       Classical                       Jazz              LIKE JAZZ
 AND <------------------------------------------------------------------> AND
LIKE CLASSICAL       .Radio                         .Radio   DON'T LIKE CLASSICAL
                      Classical                       Jazz
```

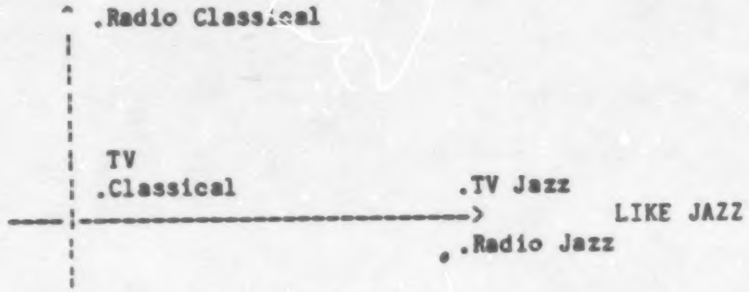
To construct an index to represent this single dimension, one could construct a four item index with respondents given one point for each response: 1) Watch classical on TV, 2) Listen to classical on radio, 3) Don't watch jazz on TV, 4) Don't listen to jazz on the radio. The more points on the scale, the closer the person is to the left-hand end of the scale (LIKE CLASSICAL AND DON'T LIKE JAZZ); the fewer the points, the more the person is at the right-hand end of the scale (LIKE JAZZ AND DON'T LIKE CLASSICAL). Here, then, only one index or dimension is required to sum up variations in response to these four questions.

But, as a second example, suppose instead that the correlation coefficients show that liking jazz and liking classical music are not polar opposites, but are almost unrelated to one another. In other words, there is no correlation or association between liking jazz and liking classical music. Here the factor analysis is likely to generate a two-dimensional solution that could well take the following form in spatial terms:



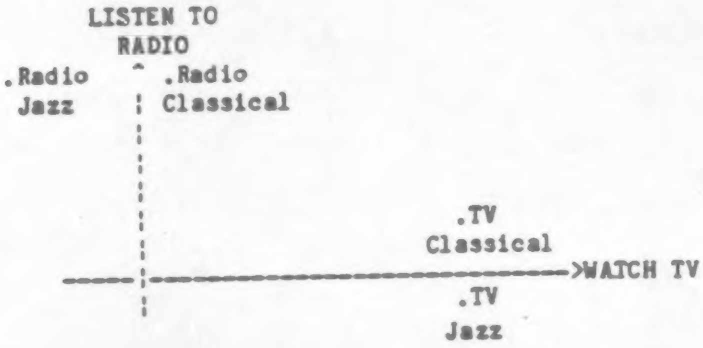
(Here the intersection point [illegible] arbitrarily defined to denote the presence of a second dimension.) Such a configuration suggests the need for two dimensions to describe the data, one dimension for classical music and one dimension for jazz. That indicates the need for two indices of two items each, a classical one scored 0, 1, or 2 depending on whether the person watched or listened to no classical music (0), enjoyed classical music either on radio or on TV (1), or on both radio and TV (2). The two item jazz index would be scored in the same way. When there are two dimensions, use of two indices makes more sense.

The same logic applies when there are three dimensions in the data. This would be the case if, for example, listening to jazz on radio and watching jazz on television were related (as above), but that was not true for classical music-- so that listening to classical music on the radio was unrelated both to watching classical music programs on TV and to listening and watching jazz. In that case, we might have:


.Radio Classical
TV
.Classical
.TV Jazz
LIKE JAZZ
.Radio Jazz

where the position of the TV classical variable needs to be visualized as being located on a right angle from the page in a third dimension. Here three indices seem called for: one for jazz (on either radio or TV), one for classical music on TV, and one for classical music on radio.

Thus, as noted above, factor analysis has the ability to discover which of these or other patterns best describes the relations between variables. We might well discover that the variables are more organized around the types of mass media than around the types of music as portrayed above. In that case, it would be more appropriate to construct our indices on that basis. If, for example, the factor analysis generated a two- dimensional space like the following:


LISTEN TO
RADIO
.Radio
Jazz
.Radio
Classical
.TV
Classical
WATCH TV
.TV
Jazz

then it would seem that the most logical indices are a two-item measure of TV users and another two-item measure of radio users.

Another possibility is that all four variables cluster together on one dimension, but not apart from each other on that single line as in our first examples. Visually, this would look like:

```
                         .TV   .Radio
                         Jazz  Jazz
-------------------------------------->MEDIA
                     .Radio    .TV     MUSIC
                   Classical Classical
```

Since all four variables cluster together, this suggests people's media behavior is organized around one type of music on any type of mass medium. The appropriate index here would be based on four items -- a person answering "yes" to all four questions scoring a four, "yes" to three scoring a three, etc. down to zero.

All these examples should make these five points about factor analysis clear:

1) It generates different dimensions depending on the pattern of correlations that are observed.

2) Interpretation of these resulting dimensions is dependent solely on the investigator's (human) judgement of what it is that leads to the clustering of variables in that space--even though the dimensions are derived by mathematical formulas.

3) Factor analysis depends solely on statistical correlation or association between variables and employs no prior logic about

how the variables ought to be related. It has no ideas or assumptions of what association makes sense.

4) It thus attempts to uncover or discover "spaces" rather than to fit any preconceived pattern of how variables ought to be situated in that space.

5) It suggests variables that ought to go together to form indices, but the actual index construction is a separate process.

With regard to the latter point, it will be noted that we do not believe in slavishly following the factor analytic results. That is because the factor analysis may well group variables together that make minimal or no analytic sense when lumped together into a single index. For that reason, we have leavened the factor analysis results in chapters ~~5~~ to 9 with our own "common sense" indices that summarize variables that should be added together to understand and clarify how the study variables relate to one another.

It might be well to illustrate the complexities and ambiguities inherent in most factor analyses with a specific "real life" example from the present study. In Figure 6, we have presented the results of a factor analysis for SPA media variables alluded to in the above illustration. The 12 variables involve three types of mass media (television, radio, and recordings) and four types of music (jazz, classical, opera, and musicals). The basic question for the factor analysis, again, is: Are people's behaviors with regard to music consumption via the mass media more dependent on the music or more dependent on the medium?

The array of points in Figure 6 indicates a mixture of both. The main, horizontal, dimension that runs from left to right, separates certain TV responses (for classical items (4), for opera (7), and for musicals (10)) from their counterparts on radio and records (items 5 + 6, 8 + 9, and 10 + 11). That suggests that the medium is the major dimension involved, but only for these three types of music, and not for jazz.

On the other hand, the second factor shown on the vertical (up-down) dimension is a music dimension. That dimension clearly separates the (clustered) jazz responses (items 1, 2, and 3) from the responses to the other three types of music (items 4 through 12).

In the same way, the third dimension (which is circled and must be visualized as coming up straight from the page) once again indicates a medium-oriented factor since it groups the four items related to watching music programs on TV (items 1, 4, 7, and 10).

Thus, of all the possible ways one might find that the 12 variables might be organized, this factor analysis suggests responses to these questions organize themselves around three dimensions:

1) Radio/recordings of classical music, opera, and operetta/musicals
2) Jazz (on radio, TV, and recordings)
3) TV music

Three indices that are thus suggested are a six-item one for radio/recordings, a three-item one for jazz, and a four-item one for TV music. This does not suggest that it would not be worthwhile to create other dimensions, say for classical music, for listening to music on radio, or for all 12 items together. It suggests that the three dimensions on Figure 1 have the strength of at least some statistical or empirical logic behind them.

XII. INDEX CONSTRUCTION

There are two major reasons for attempting to analyze survey data by index construction. They are to increase reliability and to increase efficiency.

Reliability is increased because one does not have to depend on individual responses to a single item. On any given item, respondents may misinterpret the question, be misled by a single word, or give an incorrect answer in any number of ways. Having responses to additional questions, which have varied wording and varied perspectives allows the researcher to be more sure that respondents are, for example, more active in the arts, or more active users of mass media for arts-related activities.

Efficiency is increased because instead of analyzing 5, 10, or 20 items separately and encountering possibly numerous idiosyncrasies in each, one can lump these items together in a single variable. As we have seen, factor analysis is a very useful tool for identifying 1) which items to put into an index, and 2) how many indices to create.

In order to keep the analyses in this report at the least complicated and most understandable level, we have used a very simple method of constructing indices once they have been defined. That method is to assign a single point to be given for each appropriate response in that index, e.g. one point for each arts activity, or one point for each type of mass media employed. While more sophisticated index construction schemes can be devised, this one has the value of maximum simplicity, interpretation and comprehensibility.

Chapter 3

ARTS PARTICIPATION

The SPA '82 began with a series of "core" questions designed to describe participation in certain arts-related activities in the United States. These core questions were asked of all respondents in the survey and measured their participation in the arts during the previous twelve months. "Participation" included being either in the audience for some live arts performance or a performer in a live arts event. Participation also included reading certain types of literature, such as novels, short stories, poems or plays. Arts participation, then, was defined in this study to include attending live performances or art displays, reading certain forms of literature, and performing in a public artistic event.

This chapter examines these questions and the tabulations of respondents' answers to them, aggregated for all 12 months of the survey. The analysis in this chapter transforms these responses into several formats for analysis and consideration:

1) Estimates of the participation rate and the number of participants for various art forms--these estimates indicate the relative amount of public activity in each of the art activities. For instance, how many Americans attend opera or attend ballet? What proportion of Americans performed in a live public arts event, or read novels, short stories, poetry or plays?

2) Differential participation rates within several demographic groups--this analysis examines differences in the participation among people with different backgrounds and major predictive variables for each arts activity; e.g., are blacks more likely than whites to attend jazz performances?

3) Differential participation by each demographic group when the associated influences of other demographic variables are controlled statistically— this analysis suggests the reasons why differences occur among sub-groups within a demographic variable. For example, are the differential participation rates among whites and blacks attributable to other factors associated with race, such as education and income? Is it the higher educational level of whites that accounts for their greater arts participation?

4) The extent of overlapping audiences of art forms indicated by correlations between pairs of arts activities--these correlations show which art forms have more "overlap" across audiences. Are people who attend jazz performances, for example, more likely to read literature or to attend musicals as well?

5) An index of overall cultural participation in these

art forms by demographic groups--this analysis allows prediction of a broader spectrum participation based on background factors. For example, do blacks or whites tend to participate in a greater number of types of arts activities?

1) CORE QUESTIONS AND RESPONSES

The core questions ask about attendance at seven types of live performances or art displays:

- jazz
- classical music
- opera
- musical stage plays or operettas
- stage plays (non-musical)
- ballet
- art galleries and museums

Questions 8 and 9 ask whether the respondents had themselves performed in (or rehearsed for) such public performances, by playing a musical instrument, by acting, singing, or dancing. The final core question, question 10, asks about reading novels, short stories, poetry, or plays. All ten questions ask about participation in the last 12 months. Table 3.1 shows the exact wording and format of the core questions.

As Table 3.1 shows, if respondents answered "yes" to the initial questions on participation, follow-up questions were asked about the number of times he/she had participated during the previous month. For the next two questions on performing and rehearsing, those who reported participating in the last 12 months were asked only about their type of performance or rehearsal activities during that 12-month period. Thus, while the time frame for follow-up questions to the first seven questions is the previous

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Table 3.1: Distribution of Responses to Core Participation Question (N=17,254 respondents)

1. The following questions are about YOUR activities during the LAST 12 months — —between ____________ 1, 19___, and ____________ ___, 19___.

During the LAST 12 MONTHS, did YOU go to a live jazz performance?

0 ☐ No (n = 15,601)

Yes — How many times did you do this LAST MONTH— —between ____________ 1, and ____________ ___, 19___?

1 ☐ None 1111
2 ☐ One 351
3 ☐ 2–3 122
4 ☐ 4–5 22
5 ☐ 6 or more 16
NA = 31

2. (During the LAST 12 MONTHS,) Did you go to a live classical music performance? This includes choral music and instrumental or vocal recitals, as well as symphony and chamber music.

0 ☐ No 14,967

Yes — How many times did you do this LAST MONTH ?

1 ☐ None 1496
2 ☐ One 569
3 ☐ 2–3 162
4 ☐ 4–5 29
5 ☐ 6 or more 22
NA = 9

3. (During the LAST 12 MONTHS,) Did you go to a live opera?

0 ☐ No 16,698

Yes — How many times did you do this LAST MONTH ?

1 ☐ None 395
2 ☐ One 113
3 ☐ 2–3 20
4 ☐ 4–5 4
5 ☐ 6 or more 4
NA = 20

4. (During the LAST 12 MONTHS,) Did you go to a live musical stage play or an operetta? Do not include grade school or high school productions.

0 ☐ No 14,002

Yes — How many times did you do this LAST MONTH ?

1 ☐ None 2362
2 ☐ One 715
3 ☐ 2–3 145
4 ☐ 4–5 11
5 ☐ 6 or more 8
NA = 11

5. (During the LAST 12 MONTHS,) Did you go to a live performance of a non-musical stage play? Do not include grade school or high school productions.

0 ☐ No 15,154

Yes — How many times did you do this LAST MONTH ?

1 ☐ None 1538
2 ☐ One 437
3 ☐ 2–3 93
4 ☐ 4–5 6
5 ☐ 6 or more 6
NA = 179

6. (During the LAST 12 MONTHS,) Did you go to a live ballet performance?

0 ☐ No 16,493

Yes — How many times did you do this LAST MONTH ?

1 ☐ None 565
2 ☐ One 157
3 ☐ 2–3 27
4 ☐ 4–5 2
5 ☐ 6 or more 0
NA =10

7. (During the LAST 12 MONTHS,) Did you visit an ART gallery or an ART museum?

0 ☐ No 13,425

Yes — How many times did you do this LAST MONTH ?

1 ☐ None 2511
2 ☐ One 893
3 ☐ 2–3 312
4 ☐ 4–5 56
5 ☐ 6 or more 43
NA = 14

8a. (During the LAST 12 MONTHS,) Did you play a musical instrument in a public performance or rehearse for a public musical performance?

0 ☐ No – Skip to 9a 16,586
1 ☐ Yes 668

8b. Did you play any classical music?

0 ☐ No 500
1 ☐ Yes 161

8c. Did you play any jazz?

0 ☐ No 512
1 ☐ Yes 135

9a. (During the LAST 12 MONTHS,) Did you act, sing, or dance in a public performance or rehearse for a public performance?

0 ☐ No – Skip to 10 16,473
1 ☐ Yes 781

9b. Did you act in a non-musical role?

0 ☐ No 633
1 ☐ Yes 133

9c. Did you sing in a musical play or operetta?

0 ☐ No 605
1 ☐ Yes 155

9d. Did you sing in an opera?

0 ☐ No 740
1 ☐ Yes 13

9e. Did you dance in a ballet performance?

0 ☐ No 737
1 ☐ Yes 21

10. (During the LAST 12 MONTHS,) Did you read novels, short stories, poetry, or plays?

0 ☐ No 7455
1 ☐ Yes 9739
NA = 62

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month, the time frame for the follow-up questions to Questions 8 and 9 is the previous year.

Responses for each of the core questions in Table 3.1 show the number of respondents falling into each response category. For instance, responses to Question 1 on attendance of jazz performances indicates that of the total of the 17,254 respondents (see top of Table 3.1), 15,601 said they had not attended a live jazz performance during the previous year. The remaining 1,653 respondents fall into two categories: the 1,622 (the sum of all respondents reporting some attendance for the previous month or 1111 + 351 + 122 + 22 + 16) who reported going to a jazz performance in the last 12 months and the 31 respondents who did not give a codable response. The first set of numbers is a breakdown of the number of respondents who reported different frequencies of attendance for the last month. For example, of the 1622 who had attended a jazz performance in the last year, 1,111 said they had not attended a jazz performance in the previous month, while 511 had. Of those 351 had attended over in the previous month, 122 two or three times, 22 four or five times and 16 six or more times. The responses to questions 2 through 7 follow the same format as Question 1.

The exact wordings of the questions in Table 3.1 provides further details about the survey's operational definition of arts participation. The survey's definition of attendance at musical and non-musical stage plays, for example, excludes grade school and high school productions. While the raw tabulations in Table 3.1 suggest certain differences across activities, substantive conclusions from the Table 3.1 data require further analysis involving weighting, percentaging, and other statistical manipulations of these data.

POPULATION ESTIMATES OF ARTS PARTICIPATION

An important result of this national sample is its ability to provide estimates of the extent of public participation in each type of arts activity. Since a certain amount of sampling error can be expected in even the most rigorously developed sample, certain groups may not have been included in their true proportions in the population. The raw data shown in Table 3.2a are thus weighted by gender, age, and race groups in order to make projections to the entire U.S. adult population -- the nearly 165 million of these adults, 18 years or older. If, for example, the proportion of white males aged 18-29 in a particular sample category were only half as large as the national proportion indicated in Census Bureau figures, data from such respondents in the sample would have been given a weight of two. If it were three times as large, then a weight of one-third would be applied, and so forth. See Chapter 2 for more details about weighting. When such weighting procedures were applied to the data in Table 3.1, the results are as shown in Table 3.2a.

Thus, the weighted data indicate that 22% of the American public visited an art museum or gallery in the last 12 months. This percentage translates into 36,000 visitors at art displays in the country as a whole. Note that these population and percentage estimates should not be read with a false sense of precision because a small percentage of error can equal a large number of people. The final column in Table 3.2a indicates a +/- 6.2% margin of error in the estimate of attenders of art museums or nearly a million persons.

The range of attendance estimates in Table 3.2a is broad, spanning approximately 5 million for opera to 36 million for art museums. Attendance at art museums and galleries as well as musicals is estimated to be in the range of over 30 million; attendance at classical music, plays, and jazz performances fall into an intermediate range of 16-22 million; attendance at ballet and opera occupy a relatively low range of 5-7 million. In comparison, the reading of novels, short stories, poetry, and plays is the only type of arts participation in which over half of the population was involved during the previous year. Over 90 million Americans, according to our estimate, read such literature in the prior year.

Table 3.2b presents parallel figures for performing or rehearsing for a public performance during the past year. The estimates are again weighted to correct for any disproportionate representation of certain groups in the sample. The estimates for performance or rehearsal for a public performance tend to fall into the same order of arts-related activities as the attendance data. Playing classical music and singing in a musical play are both in the high range (representing nearly 1.5 million adults), playing jazz and acting in a non-musical play are in a somewhat lower range (of nearly 1.3 million adults) and dancing in a ballet and singing in an opera are in a much lower range, but still in the hundreds of thousands.

When art forms are rank ordered by the number of people attending performances and by the number of people performing in them, they fall in nearly the same order. This relationship is shown in Table 3.2c, which presents both sets of estimates for six art forms arrayed from left to right from highest to lowest number in terms of attenders. In terms of performances, the first and second ranks are reversed with performers in musicals ranking second to performers of classical music. The third and fourth ranks also switch, with actors in plays ranking slightly below people who play jazz music in terms of performers. The final ranks remain the same with ballet performers being larger than the number who perform in an opera. Thus, art forms with greater numbers of attenders tend also to have larger numbers of performers.

While the number of performers generally declines as attenders decrease, this does not occur at a uniform rate as demonstrated in the ratio figures in Table 3.2c. The two important exceptions are musicals and jazz. Whereas musicals have the largest audience of the six art forms studied, the ratio of performers to attenders is nearly half the ratio for the jazz audience which has the highest performer-to-attender ratio in the table.

In sum, comparison of the estimates of arts participation reveals differing patterns in attendance and performance forms of participation. Musicals have a relatively high level of attenders and performers, but only an intermediate ratio of performers to attenders. Classical music has a high level of performers, an intermediate level of attenders, and a moderately high ratio of performers to attenders. Plays have a moderately high level of performers and ratio of performers to attenders and an intermediate level of attenders. Jazz has a moderately high level of performers, a low intermediate level of attenders, and the highest ratio of performers to attenders. Finally, ballet and opera have low levels of both performers and attenders as well as the lowest ratios of performers to attenders. These figures suggest jazz to be the most "accessible" art form to the public in terms of public performance, with ballet and opera being least accessible.

Table 3.2a: Weighted Participation Rate Estimates for Arts Activities During the Previous 12 Months

	Percentage Attending	Estimated U.S. Population (% x 164 million)	Error Factor*
Galleries/Museums	22%	36,000	+/-1.14%
Musicals	19%	30,000	+/- .79%
Classical Music	13%	21,000	+/- .76%
Plays	12%	20,000	+/- .61%
Jazz	10%	16,000	+/- .62%
Ballet	4%	7,000	+/- .37%
Opera	3%	5,000	+/- .37%
Reading	56%	93,000	+/-1.04

NOTE: *The error factor is at 95% confidence and takes design effects into account.

Table 3.2b: Weighted Population Estimates for Appearing in Public Arts-Related Performance

	Previous Year	Estimated U.S. Population	Error Factor
Classical Music	.9%	1,476,000	+/-.11%
Musicals	.9%	1,468,000	+/-.11%
Jazz	.8%	1,281,000	+/-.11%
Plays	.8%	1,270,000	+/-.07%
Ballet	.1%	207,000	+/-.03%
Opera	.1%	134,000	+/-.05%

Table 3.2c: Ratio of Performers to Attenders Based on Population Estimates (in thousands)

	Musicals	Classical Music	Plays	Jazz	Ballet	Opera
Performers	1,468	1,476	1,270	1,281	207	134
Attenders	30,664	21,398	19,579	15,815	6,901	4,996
Ratio of Performers to Attenders	.048	.069	.065	.081	.030	.027

2) ARTS PARTICIPATION AND BACKGROUND FACTORS

The 1982 survey of arts participation allows examination of arts participation by a variety of measured background variables. The larger survey included questions on the following background variables:

A. Geography
   1. Urban
   2. Rural
   3. Population Size of Place
   4. Standard Metropolitan Statistical Areas (SMSA)
   5. State
   6. County

B. Demography
   1. Race
   2. National Origin
   3. Age
   4. Marital Status
   5. Relationship in Household
   6. Gender
   7. Education
   8. Household Income
   9. Number of Children

C. Housing
   1. Type of Unit
   2. Access to Automobile

3. Kitchen Facilities
4. Telephone
5. Number of Units
6. Year Built
7. Tenure of Living Quarters
8. Length of Time at Address
9. Number of Moves in the Last Five Years

D. Occupation and Employment

1. Employment Status
2. Reason for Unemployment
3. Extent of Job Search Efforts
4. Occupation
5. Type of Employing Organization

The analyses in this chapter, however, are limited to eleven background variables (in this list and in figures that follow): age, gender, race, education, income, SMSA, region, marital status, work hours, occupation, and number of children. These variables were selected to represent the most salient dimensions of geography, demography, and occupation. Variables related to housing and to origin are examined in Chapter 4.

In the following analyses of background variables and their impact on arts participation, it is important to distinguish between the usefulness of these variables in predicting participation, and their usefulness in explaining that same participation. An understanding of that distinction will help the reader decide whether to devote more of his attention to the unadjusted data or the adjusted data, depending on his needs and interests.

If a factor is a useful predictor of arts participation, then it efficiently characterizes groups of people who are more likely to participate than other groups. At face value, this knowledge serves to predict attendance, although the factor cannot be said to cause the different rates of participation, and might only succeed as a predictor because of its association with other related factors which have a more direct or stronger influence on participation behavior. For readers interested in efficient prediction of arts participation, without examining the underlying and perhaps more complex relationship between background factors and participation, the unadjusted statistics in this chapter will provide the needed information.

However, for those readers interested in explaining why participation differs across groups of people with different background characteristics, it is necessary to analyze the web of influences on arts participation and identify factors with the greatest explanatory power. The adjusted statistics in this chapter, which separate out a given background factor's explanatory power from all other factors studied, will be more informative to readers attempting to explain arts participation behavior.

The following analyses of background factors are organized into two parts. The first part examines each of 11 demographic factors to see how they affect participation rates across eight different arts activities. The second part examines each of the eight arts activities to see which background factors predict attendance, using both unadjusted and adjusted data.

Across different arts activities, some background factors are generally useful predictors of participation. These patterns can be seen by reading across rows of Tables 3.3 and 3.4, which present respectively the unadjusted and adjusted figures or participation rates by background fac-

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Table 3.3: Participation Rates for Various Performances by MCA Controlled Background Factors

	Jazz	Classical Music	Opera	Musicals	Plays	Ballet	Art Museums	Reading
Grand mean	9.6%	13.0%	3.0%	18.6%	11.9%	4.2%	22.1%	56.4%
Age:								
18–24	15.2	10.1	1.8	16.0	9.5	3.0	21.3	56.3
25–34	13.9	9.9	1.9	17.0	9.6	3.7	22.9	57.1
35–44	7.7	14.1	3.3	20.6	13.4	5.3	24.7	55.9
45–54	7.2	15.6	4.3	21.3	13.7	4.2	22.1	56.1
55–64	6.0	15.5	4.5	21.2	13.8	5.0	21.8	57.4
65–74	4.4	16.9	4.9	19.0	14.4	5.0	21.1	56.0
75–96	4.1	12.6	3.4	14.3	10.6	3.5	16.7	53.5
Sex:								
Male	9.5	10.2	2.2	15.0	9.3	1.9	19.4	48.2
Female	9.7	15.5	3.7	21.8	14.0	6.3	24.5	63.6
Race:								
White	9.0	13.6	3.2	19.4	12.5	4.5	22.9	57.6
Black	15.7	9.5	2.0	14.5	8.5	2.3	16.3	49.2
Other	4.8	5.2	1.9	7.5	3.7	1.3	20.4	42.5
Education:								
Grade school	5.6	2.0	0.4	7.9	3.4	1.4	6.9	24.8
Some high school	5.7	[illegible]	0.9	9.1	5.2	1.4	9.1	38.9
High school graduate	6.8	8.0	2.2	13.8	7.5	2.4	16.4	54.1
Some college	12.6	17.8	3.9	24.7	15.6	5.5	30.0	70.5
College graduate	17.4	28.6	6.0	34.0	23.9	9.1	41.4	77.6
Graduate school	18.3	36.5	8.9	40.0	33.0	12.4	50.8	83.0
Income:								
Under $10,000	8.0	12.0	2.2	14.7	10.2	3.7	19.3	48.7
$10,000 – $14,999	[illegible]	11.7	2.8	18.1	8.6	3.3	19.8	53.6
$15,000 – $19,999	9.0	11.8	2.5	15.8	10.0	3.9	20.3	56.5
$20,000 – $29,999	[illegible]	11.7	2.5	16.4	10.1	4.0	21.0	54.3
$30,000 – $49,999	[illegible]	12.3	2.3	19.4	12.1	3.8	21.8	57.6
$50,000 and over	10.7	15.4	3.8	24.5	16.2	5.1	25.7	60.5
Not ascertained	9.8	13.4	4.4	18.6	10.9	4.6	22.1	56.4
SMSA								
1 Cent City of SMSA	11.4	15.0	3.9	22.0	14.5	5.7	26.2	57.5
2 SMSA, Not Cent City	9.9	12.5	3.3	19.4	11.2	4.4	21.8	56.4
3 Not in SMSA	7.8	12.0	2.0	15.0	10.6	2.8	19.1	55.5
Regional								
1 Northeast	8.9	13.1	3.2	21.8	13.3	5.0	21.4	57.7
2 Northcentral	10.4	14.6	3.0	18.7	12.4	3.8	21.8	58.1
3 South	9.2	11.4	3.1	16.2	10.7	4.2	20.8	52.3
4 West	10.1	13.4	2.8	19.3	12.1	4.1	25.5	59.9
Marital Status								
1 Married	8.0	11.7	2.3	17.6	10.8	3.4	21.2	55.6
2 Widowed	9.2	13.8	3.6	20.4	11.5	0.1	21.3	58.9
3 Divorced	14.9	[illegible]	3.2	20.2	14.3	5.4	25.8	60.0
4 Separated	12.3	13.5	3.3	19.5	[illegible]	4.0	23.1	54.1
5 Never Married	12.7	15.4	5.1	20.6	[illegible]	6.3	24.0	57.1
Work Hours								
1 None	11.6	16.8	3.8	22.8	13.9	5.2	27.4	63.1
2 1 to 29	8.7	11.9	2.3	18.1	12.4	3.3	22.7	55.5
3 30 to 39	8.7	10.9	3.4	15.7	10.4	3.8	19.8	54.2
4 40 hrs	7.2	8.9	2.0	13.4	9.6	3.1	15.9	48.8
5 41 to 49	8.0	10.7	2.7	14.5	8.2	3.2	16.9	51.6
6 50 or more	9.9	11.7	2.9	19.0	11.8	4.3	19.5	52.8
Work								
1 Professional	12.7	19.6	5.4	25.5	16.7	6.0	30.4	64.3
2 Managerial	12.6	15.6	4.6	26.4	15.3	5.6	30.2	62.0
3 Sales,clerical	11.4	15.6	3.0	24.0	14.2	5.2	25.0	63.4
4 Craftsmen	10.8	14.9	3.6	19.7	11.5	5.4	24.5	55.3
5 Operatives	9.3	13.8	3.0	17.3	11.3	4.6	21.2	[illegible]
6 Laborers	9.9	14.2	3.1	17.1	11.5	5.0	[illegible]	[illegible]
7 Service workers	8.9	15.1	3.7	20.5	11.2	[illegible]	23.3	62.8
8 Not working	8.3	10.5	2.4	14.3	10.4	[illegible]	18.7	52.3
9 Keeping house	7.1	8.4	1.5	12.5	8.0	1.7	15.8	49.0
10 Student	13.1	11.7	2.5	17.2	17.4	4.5	23.3	65.3
11 Retired	7.2	9.2	2.8	18.1	11.9	4.1	16.9	53.0
Number of Children								
0 No children	10.7	13.3	3.1	19.2	12.3	[illegible]	23.2	57.2
1 One 6–11 yrs	[illegible]	12.7	3.1	[illegible]	10.8	[illegible]	21.7	56.7
2 Two or & 6–11 yrs	8.4	15.2	3.4	17.5	11.9	6.7	19.7	57.2
3 One under 6	6.7	10.5	2.4	16.9	11.2	3.1	17.0	52.2
4 One 6–11, 1 under 6	4.4	12.1	2.6	16.9	9.9	5.3	21.4	53.7
5 2 or & 6–11, 1 under 6	7.3	13.1	3.3	[illegible]	9.6	2.6	19.4	56.9
6 2 or & under 6	5.8	10.1	2.8	16.4	9.0	4.2	15.6	52.0
7 1 6–11, 2 or & under 6	7.8	16.8	3.5	21.8	17.5	5.3	18.1	55.4
8 2 & 6–11, 2 or & under 6	3.0	12.5	[illegible]	12.7	8.4	3.3	23.9	46.8

tors. (Discussion of the adjusted figures will be postponed until the analyses within art activities.) The general impact of each of eleven background factors on participation in various arts activities is summarized below.

BACKGROUND VARIABLES: DIFFERENCES IN PARTICIPATION RATES BEFORE ADJUSTMENT

For any of these background factors, an indicator of its usefulness is the range of variation, the difference between the highest and lowest participation rates of individuals who differ in this background characteristic. When this range is large, the factor can be used to predict greater differences in the likelihood of arts participation. Conversely, when the range is small, the factor is less useful in distinguishing groups of high and low attenders. (The range of variation across the arts activities can be gauged in Table 3.3 or Table 3.4 by subtracting the maximum and minimum participation rates for each background factor and then comparing the variations down the columns of arts activities.)

Although the most important factors associated with participation show some fluctuation across art activities, some trends can be discerned. Generally, education, occupation, and income are respectively the first, second, and third best predictors.

Age

Arts participation declines among the older segments of the population, but the watershed point for this decline varies across activities. Opera attendance has the oldest peak point (45-55 years); the peak point for attendance of classical music, musicals, plays, ballet, and art museums is the next younger group (35-44 years); the peak point for those reading literature is younger still (25-34); while for jazz attendance has the youngest mode (18-24). Thus, the audiences of the various arts activities are drawn in varying degrees from different age groups, although least likely in oldest groups of the population.

Gender

Females have a higher participation rate than males for most arts activities: attending live performances of classical music, musical and non-musical plays, and ballet; visiting at art museums or galleries; and reading literature. The one exception is attending jazz performances--males are noticeably more likely than females to attend jazz performances.

Race

The most common pattern by race is that whites tend to have the highest participation rate, blacks the lowest rate, and "other" races an intermediate rate. This holds for attendance of classical music, musicals, plays, and ballet, as well as for reading literature. However, "other" races attend opera at a level almost equal that of whites, and report a higher rate for visiting art galleries and museums. Jazz attendance is the one type of live performance for which blacks' rate is the highest (or above the national average); whites and "other" races have roughly equal rates of attending jazz performances.

Education

For each art activity, participation rates (attendance and reading) increase markkedly with educational levels. Except for jazz attendance, the point at which the population average rate for the sample is exceeded occurs among those with some college education.

Income

Household income is positively related to arts attendance and reading literature. The minor qualification is that for attending some live performances (jazz, classical music, musicals, plays, and ballet) those earning below $10,000 are a little more likely to attend than are those earning $10,000-$14,999.

Standard Metropolitan Statistical Area (SMSA)

The typical pattern in this case is for residents of central cities within SMSA's to have the highest rates, for residents of SMSA's outside of central cities to have slightly lower rates, and for those outside of SMSA's to have the lowest rates. In two cases (attendance of musicals and reading literature), the participation rates of those living in an SMSA, but outside of the central city, are the highest.

Region

People residing in the South have the lowest participation rates for all of the arts activities, while those living in the West typically have the highest participation rates. Participation rates in most cases tend to be relatively high in the Northeast (jazz performances are the exception). The participation rates for those in the North Central area tend to be intermediate relative to the other regions, but relatively high for jazz and classical music and low for ballet.

Marital Status

The divorced and never married are more likely than average to attend any of the art events, or to read literature. Married, widowed, and separated respondents attend and read at less than average rates, one exception being that separated individuals attend jazz performances at a rate greater than average.

Work Hours

Those not working attend all art forms and read literature at rates below average; part-time workers participate consistently at rates above average. Those working 40 hours attend jazz performances, musicals, plays, ballet, and art displays at slightly above average rates, other arts activities at slightly below average. Those who work more than 40 hours a week generally participate in most arts events at greater than average rates. (There are a few exceptions to this, e.g. attending non-musical stage plays for those who work 41-49 hours.)

Occupation

Professionals, managers, and students and to a lesser extent sales-clerical personnel -- are more likely than average to participate in arts activities. Other types of workers only rarely exceed the average participation rate for any of the art forms. Exceptions include service workers for attending jazz performances and reading literature, those not employed in attending jazz performances, and the retired in attending opera.

Presence and Number of Children

Individuals with fewer child care responsibilities consistently have participation rates slightly greater than average. Parents with younger children generally show participation rates below the average. Parents with older children are both above and below the average for different art forms.

3) RELATIVE DIFFERENCES AFTER ADJUSTMENT

The second part of our analysis identifies the most important predictors of participation for each art form after the adjustment for other factors described in detail in Chapter 2. The unadjusted associations serve to predict the likelihood of participation among different groups categorized by a single background variable (e.g. age, or education), without taking into account all the other background factors. On the other hand, the adjusted figures show the association between participation and each background factor, when all the other background variables are controlled. This latter procedure isolates the effect of each variable, thus, aiding explanation, rather than simple prediction, of participation rates. For example, the differences or "effect" of income may be partially due to the association between income and education; the adjusted figures show the net effect of income when education effects are removed.

When compared to the unadjusted figures, the adjusted figures will be higher, lower, or show no significant change. If the adjusted figure shows higher attendance, then the actual attendance rate (the unadjusted figure) has been suppressed because associated background factors are related to lower participation. In the case of gender, for example, women's participation may be suppressed by the fact that women generally have less formal education, or income, or are older than men. Once these suppression effects of education, income, age, etc. are controlled, their participation relative to men is increased.

On the other hand, if the adjusted figure is lower than the unadjusted figure, then the actual attendance rate by that factor has been inflated by the associated effects of other background factors. This was the case in

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Table 3.4: Participation Rates for Various Arts Performances by Background Factors

	Jazz	Classical Music	Opera	Musicals	Plays	Ballet	Art Museums	Reading
Grand mean	9.6%	13.0%	3.0%	18.6%	11.9%	4.2%	22.1%	56.4%
Age:								
18–24	17.5	11.0	2.0	16.6	10.7	3.9	22.7	59.8
25–34	14.5	13.0	2.6	19.8	12.2	3.5	26.5	62.1
35–44	7.8	16.4	3.6	23.1	15.3	6.9	27.1	59.6
45–54	7.0	14.8	3.9	21.3	13.4	3.7	22.0	54.9
55–64	4.9	12.8	3.5	18.7	11.5	3.7	18.9	52.9
65–74	2.0	12.1	3.4	13.9	9.9	3.0	14.6	47.3
75–96	1.4	7.1	2.0	8.9	5.2	1.6	8.3	40.8
Sex:								
Male	10.3	11.3	2.7	16.6	10.7	2.7	21.0	48.9
Female	9.0	14.5	3.3	20.5	12.9	5.5	23.1	63.0
Race:								
White	8.9	13.9	3.2	19.7	12.7	4.5	23.2	58.3
Black	15.4	6.7	1.3	10.0	5.8	1.8	12.4	42.0
Other	8.5	9.5	3.1	13.2	8.0	3.5	27.4	50.1
Education:								
Grade school	1.4	1.9	0.5	4.2	1.7	0.4	2.7	21.0
Some high school	4.1	3.9	0.5	6.1	3.5	0.8	7.2	39.0
High school graduate	6.8	7.6	1.9	13.3	7.0	2.4	16.1	54.2
Some college	14.9	17.9	3.8	26.1	16.4	2.5	32.5	73.1
College graduate	19.2	29.4	6.6	37.4	25.9	9.7	44.1	79.9
Graduate school	19.6	38.5	10.2	44.9	36.3	13.2	55.9	85.1
Income:								
Under $10,000	7.9	8.4	1.3	9.3	7.1	2.4	12.0	39.5
$10,000 - $14,999	7.3	8.0	1.9	9.2	5.4	2.0	13.2	45.4
$15,000 - $19,999	8.1	9.5	2.0	13.2	8.6	3.2	17.3	[illegible]
$20,000 - $29,999	9.4	10.3	2.0	14.9	8.8	3.5	19.5	[illegible]
$30,000 - $49,999	9.1	12.2	2.2	19.5	12.0	3.8	22.4	58.9
$50,000 and over	12.6	20.2	5.1	30.5	20.3	6.7	33.3	69.0
Not ascertained	9.2	12.1	4.7	19.2	11.4	4.8	22.3	56.6
SMSA:								
1 Cent City of SMSA	12.6	14.7	3.9	21.2	14.1	5.6	25.6	56.5
2 SMSA, Not Cent City	10.5	14.3	3.7	22.2	13.2	5.0	24.7	60.3
3 Not in SMSA	6.0	10.1	1.4	12.3	8.5	2.1	15.9	51.8
Regional								
1 Northeast	8.9	13.8	3.6	22.9	13.9	5.4	22.2	58.5
2 Northcentral	10.1	14.2	2.9	18.4	12.1	3.6	21.4	58.4
3 South	8.6	10.0	2.5	13.8	9.2	3.5	18.5	49.1
4 West	11.5	15.6	3.7	22.5	14.0	5.1	28.9	63.9
Marital Status								
1 Married	6.8	12.2	2.6	18.5	11.4	3.6	21.3	55.7
2 Widowed	2.4	10.7	3.3	13.4	7.6	3.0	11.7	47.8
3 Divorced	14.8	17.8	3.5	20.8	14.5	6.1	26.5	60.7
4 Separated	12.6	9.9	2.4	14.9	9.9	3.3	17.9	47.0
5 Never married	19.0	15.2	4.2	20.8	14.5	5.0	27.6	61.6
Work Hours								
1 None	7.2	11.6	2.6	15.7	10.1	3.5	18.7	54.6
2 1 to 29	11.8	16.1	3.2	23.2	15.2	5.2	28.6	64.7
3 30 to 39	11.6	14.7	4.3	21.2	13.2	5.6	25.8	62.4
4 40 hrs	10.5	12.5	2.8	18.7	12.3	4.3	22.3	55.1
5 41 to 49	11.6	14.3	3.5	19.8	11.0	4.3	23.9	57.4
6 50 or more	12.1	14.6	3.7	22.6	14.2	4.7	24.9	54.3
Work								
1 Professional	18.0	30.0	7.9	37.2	27.4	9.9	45.1	78.5
2 Managerial	14.2	19.3	5.6	[illegible]	19.8	6.6	36.0	66.2
3 Sales,clerical	12.4	14.9	2.9	[illegible]	14.8	5.8	25.8	68.3
4 Craftsman	8.3	6.7	1.4	[illegible]	5.7	1.7	15.6	41.8
5 Operatives	6.6	4.3	0.6	7.0	4.0	1.1	9.6	37.9
6 Laborers	8.0	5.7	0.8	7.2	5.0	1.5	12.7	40.1
7 Service workers	9.7	11.3	2.8	16.8	8.9	4.1	20.1	[illegible]
8 Not working	10.3	11.9	2.6	15.5	10.5	3.5	20.6	54.0
9 Keeping house	4.5	10.9	2.2	13.8	8.4	3.2	16.4	54.2
10 Student	25.3	14.3	3.8	24.0	22.0	7.2	35.9	79.2
11 Retired	2.2	9.0	3.1	14.3	9.3	2.2	12.8	43.5
Number of Children								
0 No children	10.2	13.8	3.5	19.4	12.7	4.3	22.7	56.5
1 One 6–11 yrs	7.3	12.4	2.7	19.6	10.9	4.4	22.8	57.5
2 Two or & 6–11	8.3	14.5	2.7	18.1	11.7	6.5	21.2	58.2
3 One under 6	10.2	9.0	1.2	16.1	9.9	2.7	18.9	55.3
4 One 6–11, 1 under 6	6.1	10.0	1.3	14.7	8.1	4.6	22.6	56.1
5 2 or & 6–11, 1 under 6	7.7	9.9	1.7	10.3	7.0	1.6	18.9	56.0
6 2 or & under 6	8.8	8.7	1.4	15.7	7.7	3.4	18.1	55.6
7 1 6–11, 2 or & under 6	8.9	13.9	2.1	19.7	15.0	4.5	18.5	55.5
8 2 & 6–11, 2 & under 6	4.3	9.8	3.1	10.3	6.3	2.2	23.6	44.9

Chapter 2 when we controlled differences in attendance levels by race (and income) for differences by education. If the adjusted and the unadjusted figures are about equal, however, the background variables do not have a systematic influence on the association between the factor and participation rates. As noted in Chapter 2, this adjustment procedure isolates the effect of each variable, but does not identify which background variable(s) intervene in the association between the unadjustment variable and participation rates. It should also be noted that the adjusted or control does not extend beyond those 10 variables specifically included in Table 3.3.

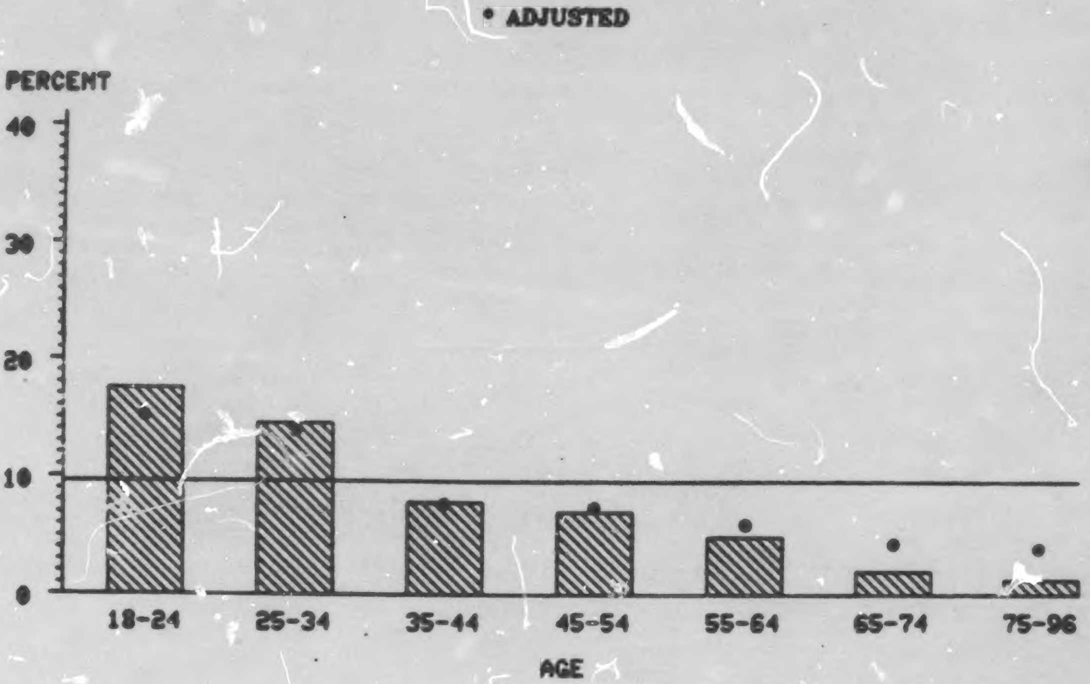
The relationships between participation and each background factor are described below as well as being represented graphically. The graphs are a useful way to perceive the trends at a glance but the exact figures are better extracted from Tables 3.3 and 3.4. In the graphs which follow , the unadjusted figures are represented by bars, the adjusted figures by dots, and the national average by a horizontal line. In the accompanying text for each figure, the first paragraph summarizes unadjusted data, and the second examines the effects of isolating the influence of a given background variable from those of the 10 other factors studied.

21

JAZZ

The best predictors of attendance rates for jazz performances are occupation, education, marital status, and age, in that order (variations of 23.1-16.1%). After controlling for the effects of other background factors, the most important predictors are education, race, and age (variations of 12.7-11.1%).

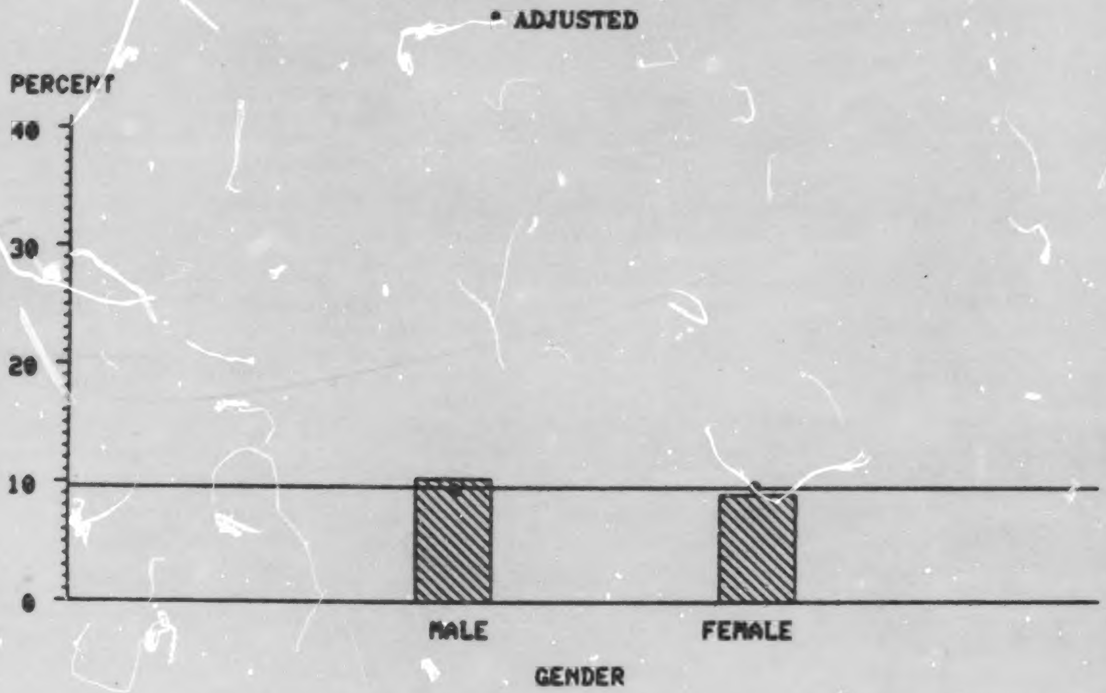
ATTEND JAZZ BY AGE



Attending jazz performances declines with age. Those aged 18-34 are at least twice as likely to attend a jazz performance as people aged 45-54, and participation continues to drop with increasing age, until among those aged 65 and over, less than 2% attend.

These age differences are reduced somewhat when other background factors are taken into account (as shown by the differences between the dots, the adjusted figures, and the bars in the graph). This is probably due to such age-related factors as education and work status. This probably means that other age-related background factors like work status and education tend to decrease participation by older people. Nevertheless, when these and other factors are held constant, the general trend remains the same--the attendance rates for jazz performances decline with age.

ATTEND JAZZ BY GENDER

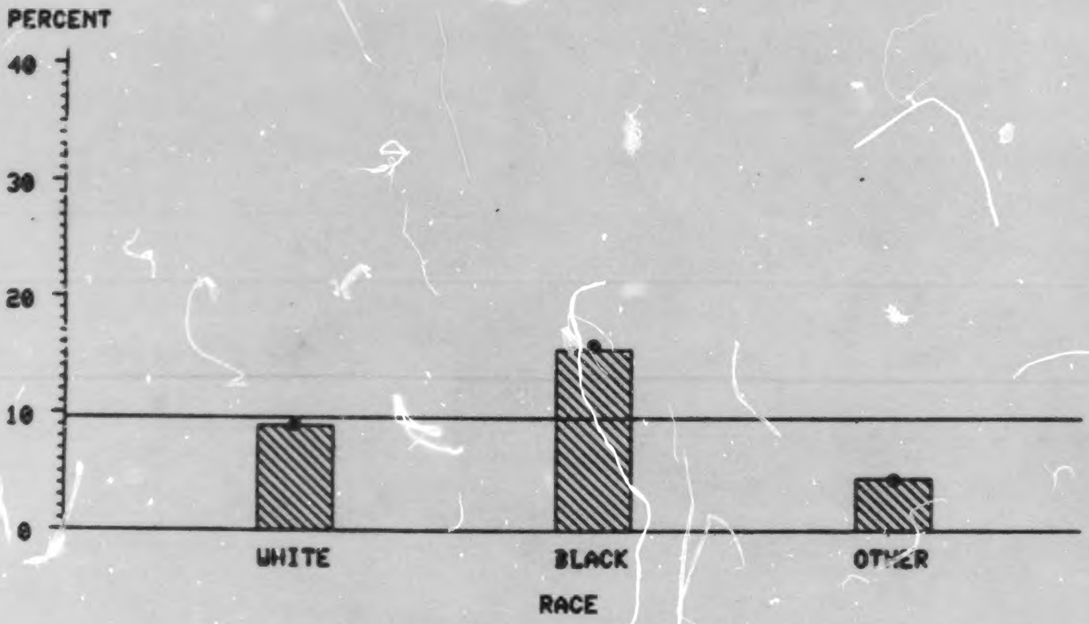


Men are slightly more likely to report attending jazz performances than are women.

After adjustments for the impact of other background factors, these small differences almost completely disappear. Gender is not a useful factor in either predicting or explaining attendance at jazz performances.

ATTEND JAZZ BY RACE

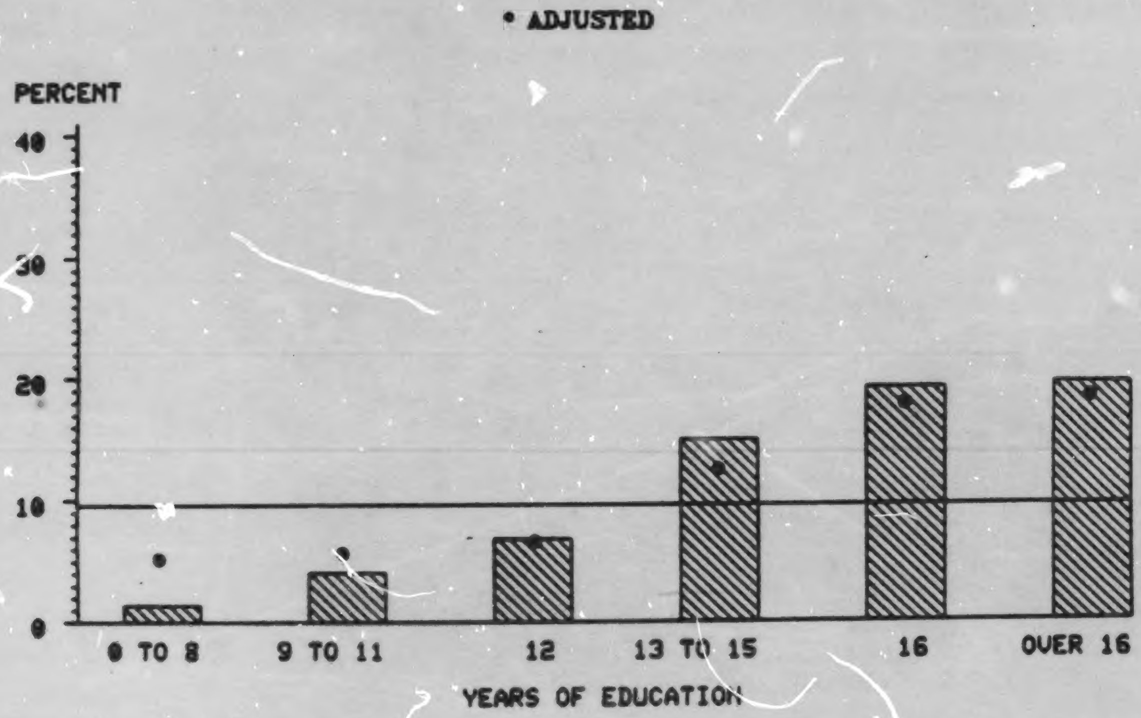
% ADJUSTED



Greater jazz attendance was reported among black respondents than among either whites or respondents with "other" racial backgrounds.

Controlling for other background variables only slightly affects participation rates for blacks and whites, but the attendance rate for "other" races declined after statistical adjustment, and apparently had been inflated by related background factors. Race, in and of itself, is a useful factor in explaining attendance at jazz performances.

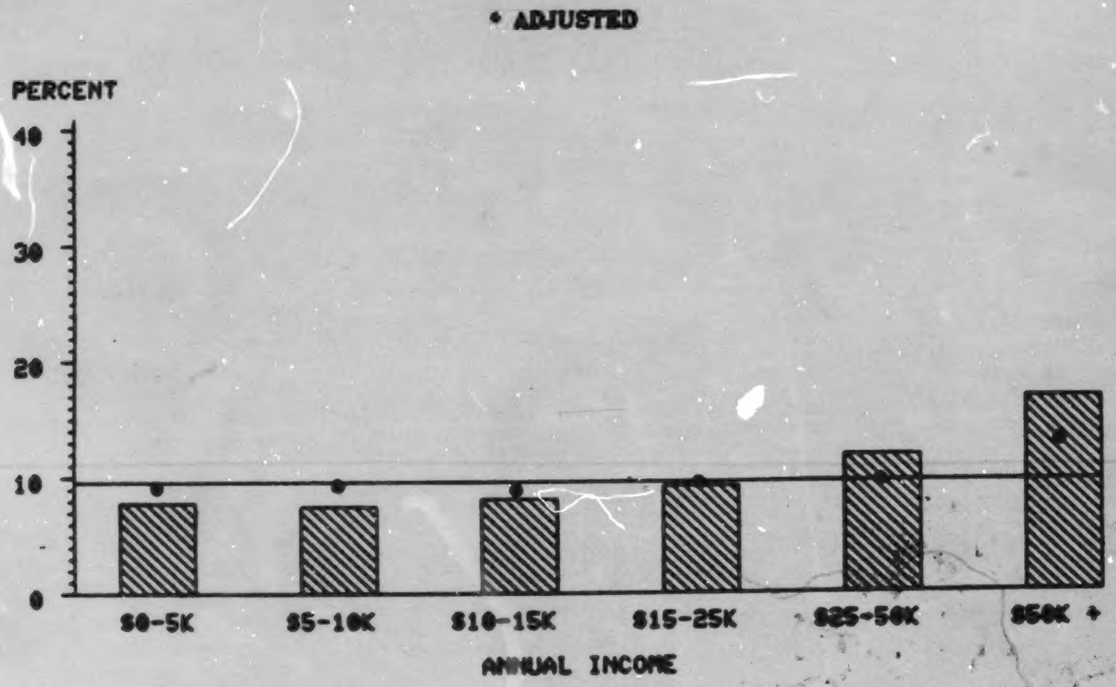
ATTEND JAZZ BY EDUCATION



The college educated are more likely to attend jazz performances than those with less education. Attendance of jazz performances is ten times more likely among those who attended graduate school than among those with only a grade school education.

While differences decline somewhat when other background factors are taken into consideration, especially for those with only a grade school education, the significant trend -- increasing jazz attendance with increasing education--remains strong. Education proves to be a useful factor in explaining attendance at live jazz performances.

ATTEND JAZZ BY INCOME

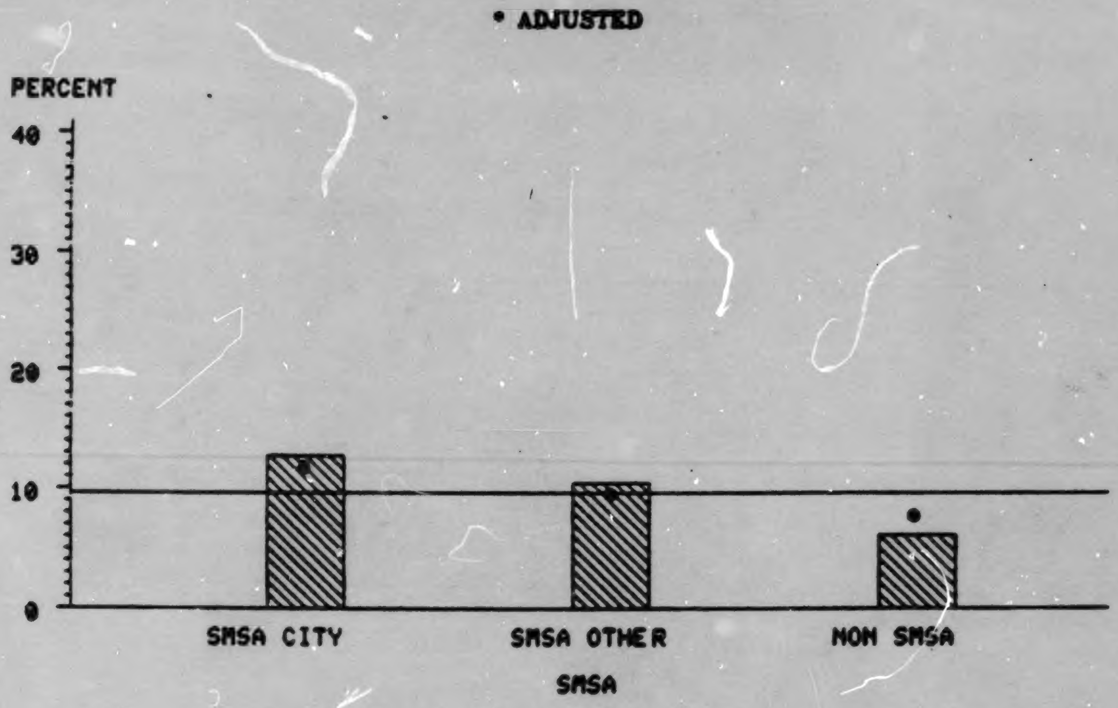


Persons from wealthier households are somewhat more likely to attend jazz performances, but the tendency is marked only for the wealthiest income bracket.

When other factors are held constant, these modest differences are further diminished. This is probably due to the close association between income and education; when the effect of education is removed, income is a relatively weak predictor of jazz attendance (see Chapter 2), but probably helps to predict attendance because of its underlying association with educational level.

21

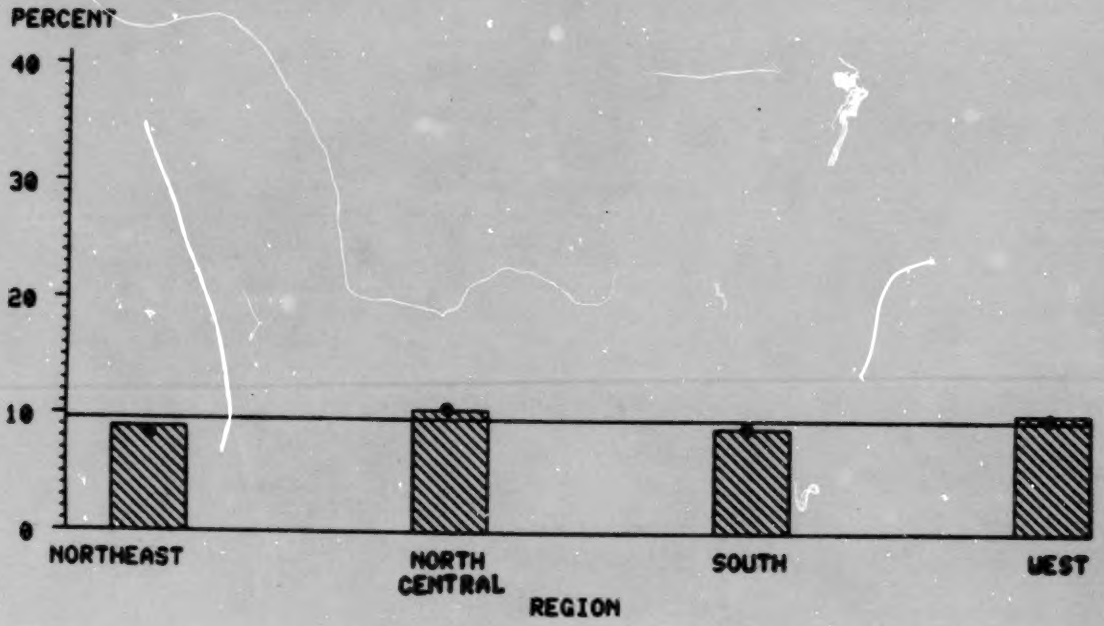
ATTEND JAZZ BY SMSA



People living in the central cities of SMSA's are slightly more likely to attend jazz performances than those living in less concentrated locations in SMSA's (such as suburbs), but are twice as likely to attend as those living outside of SMSA's.

These differences were reduced slightly after adjustment. Even when other background factors are held constant, however, SMSA residents of central cities are still somewhat more likely to attend jazz performances than those residing in SMSA's outside of central cities, who, in turn, are more likely to attend than those residing outside of SMSA's. These other background factors act to discourage attendance by non SMSA residents, while they slightly elevate attendance by people living in other locations.

ATTEND JAZZ BY REGION

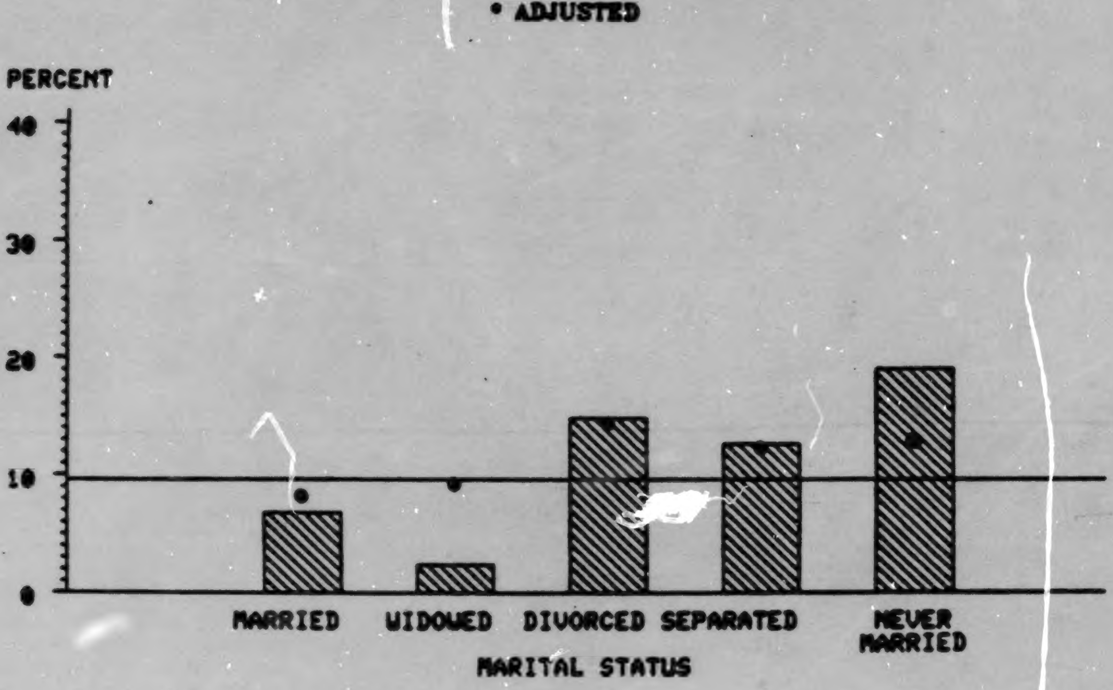


Slightly higher attendance at jazz performances was reported in the Northcentral and West than in the Northeast or South.

After adjustment for other factors, these regional differences lessened, with participation in the South and West approaching the national average. The adjustments made no change in the Northeast rate of attendance, but indicated that other factors had slightly suppressed Northcentral participation in the unadjusted figures.

29

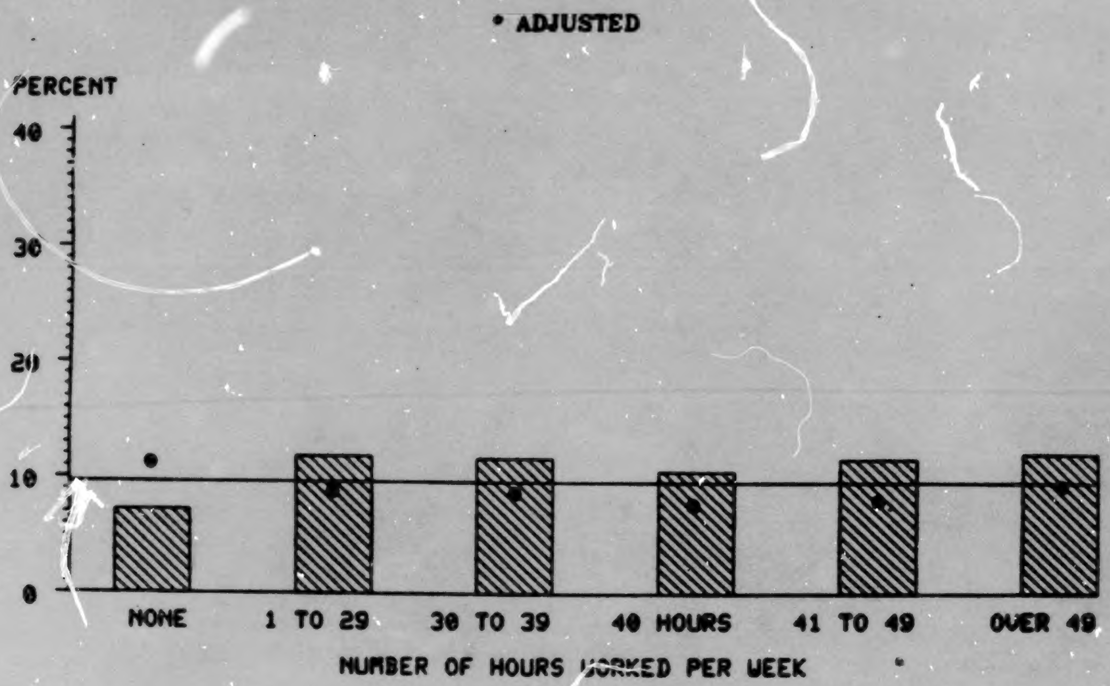
ATTEND JAZZ BY MARITAL STATUS



Married people and especially widowed people have lower than average attendance rates for jazz performances. Those divorced and those separated have higher than average rates. Those never married are twice as likely to attend as the average person is.

When other factors are held constant, however, the two groups with the lowest and the highest attendance rates (the widowed and the never married respectively) show much more average participation rates. One important underlying factor here might be the effect of age; the youthfulness of the jazz audience might have underrepresented attendance by widowed people and overrepresented attendance by people who never married, until a statistical control for age was applied. Still, even after such adjustments, married people and the widowed are less likely than other groups to attend jazz performances.

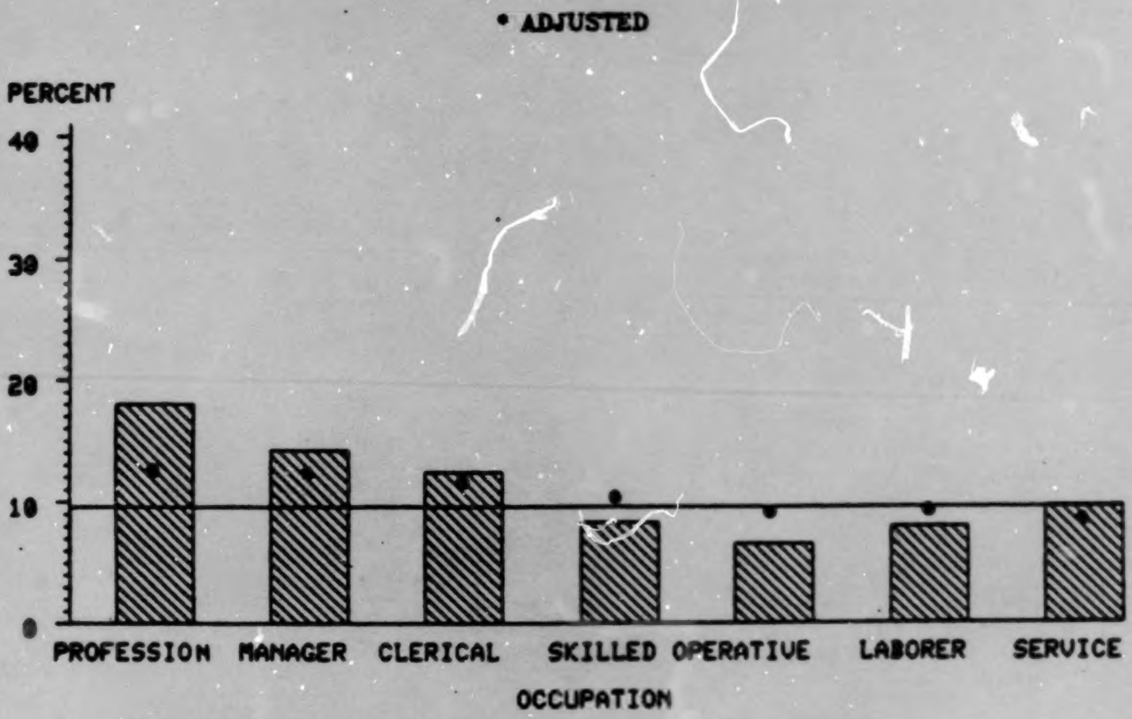
ATTEND JAZZ BY HOURS WORKED



The "not working" group is the only category falling below the national average. The other categories of hours worked have fairly similar rates, but the 40 hours a week group has the lowest rate among employed people. The over 50 hours group has the highest rate of jazz attendance.

The adjusted figures show an interesting reversal--"the not working" category now is the only group above the national average and all other groups show less attendance. It may be that adjustment for race and age account for this reversal. For example, youthful blacks, who tend to be either unemployed or students, may attend jazz more frequently.

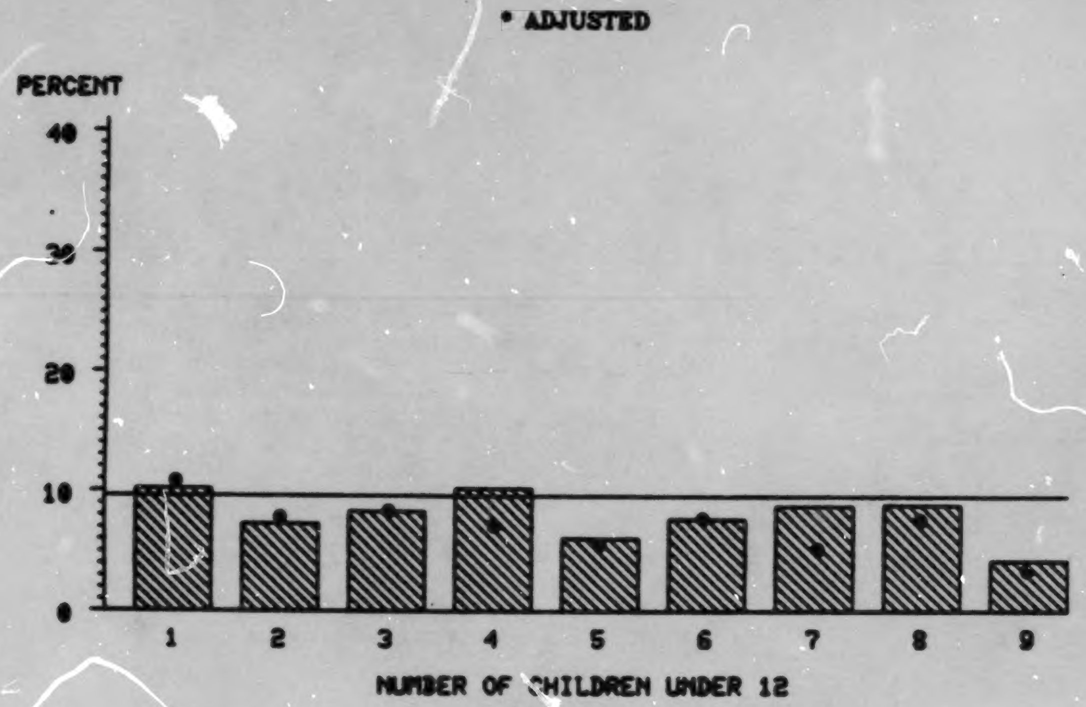
ATTEND JAZZ BY OCCUPATION



Professionals and students have the highest attendance rates, approximately two to three times the national average, while the retired and housemakers have the lowest rates.

These extremes in participation rates are considerably moderated after controlling the impact of other background factors. For example, age and education might have suppressed retir[illegible]articipation, while inflating student attendance.

ATTEND JAZZ BY NUMBER OF CHILDREN



(1) No children
(2) One child, over age 6
(3) 2+ children, over age 6
(4) one child under 6
(5) one child under 6, one over 6
(6) one child under 6; 2+ over 6
(7) 2+ children under 6; none over 6
(8) 2+ children under 6; one over 6
(9) 2+ children under 6; 2+ over 6

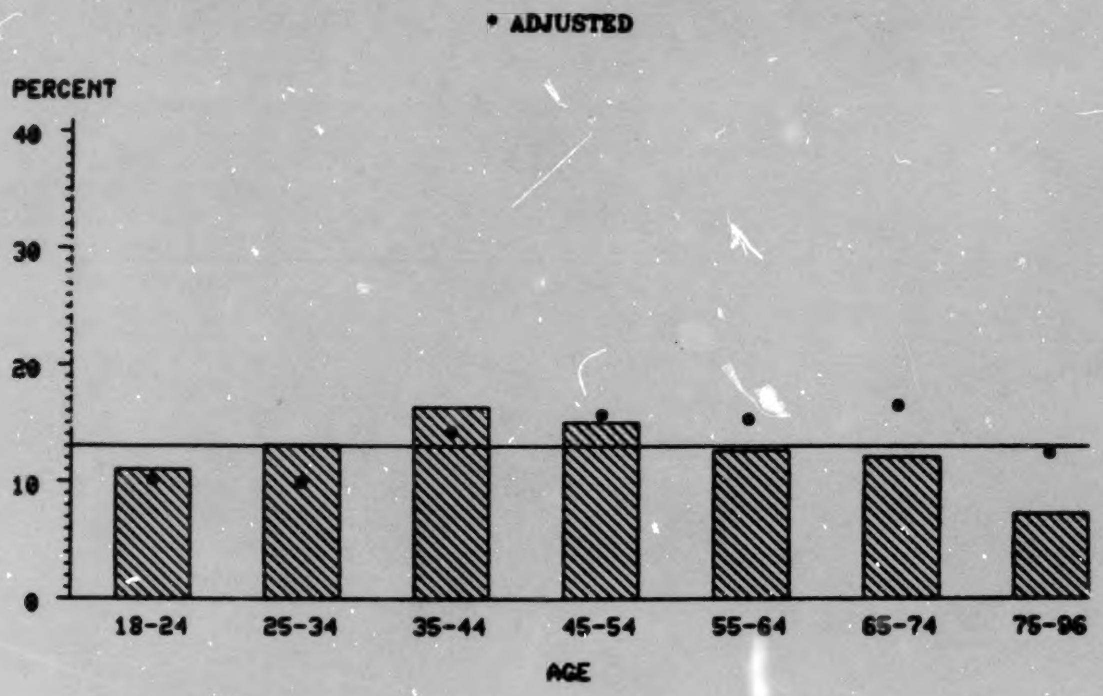
Generally, people with no children under 11 years of age are more likely to attend jazz performances than people with children of this age. One exception is those with one child less than six, who are equally as likely to attend as those with no children; both groups exceed the national average.

With other factors held constant, however, the effect of children is uniformly associated with lower than average attendance rates. Moreover, very young children appear to particularly inhibit attendance. One likely reason for the adjustment toward lower rates, particularly for those with a single child under six, is the opposing effects of age--younger people are more likely both to attend jazz performances but also to have young children who inhibit their attendance.

CLASSICAL MUSIC

Education, occupation, and income are the most important factors for predicting attendance of classical music performances (variations of 36.6-12.1%). After adjusting for other factors, education and occupation are the most important predictors for explaining attendance (variations of 34.5-11.2%).

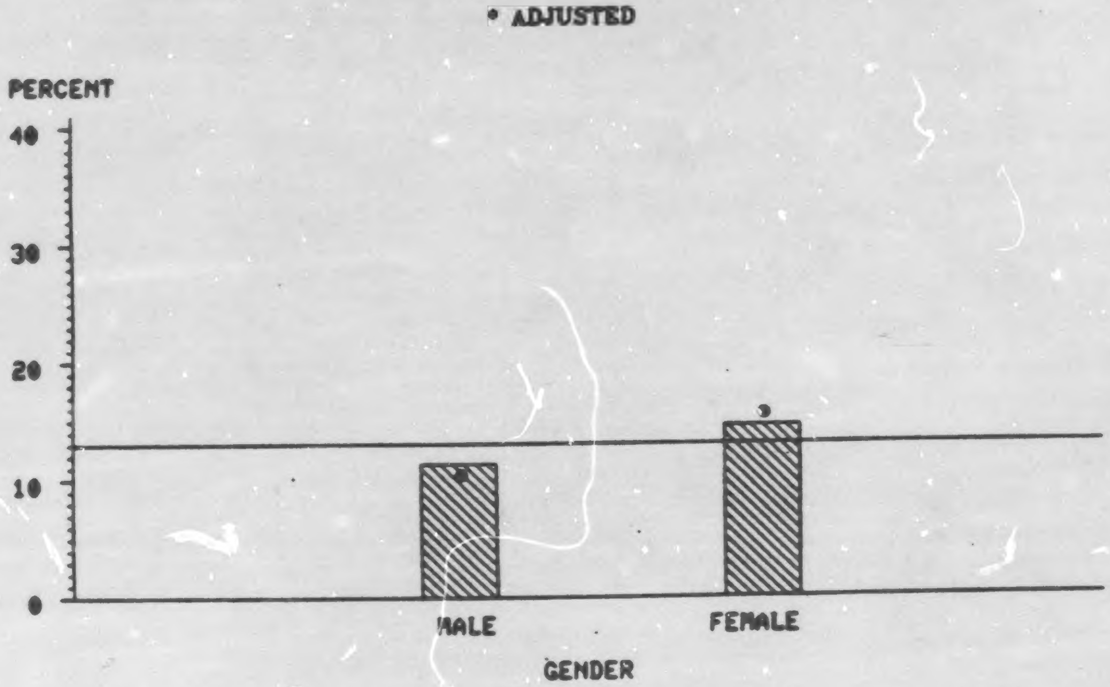
ATTEND CLASSICAL MUSIC BY AGE



The attendance rates for classical music performances rise with age until the age category of 35-44, and then steadily decline with increasing age, until the oldest group attends half as often as the 35-44 group.

After adjustment for the influence of other background factors, this curvilinear relationship of age and attendance no longer holds. Instead, attendance rates rise with age, but fall among the oldest age group. This suggests that it is the other factors associated with age (e.g., education), not age per se, which deflate attendance rates for older groups.

ATTEND CLASSICAL MUSIC BY GENDER

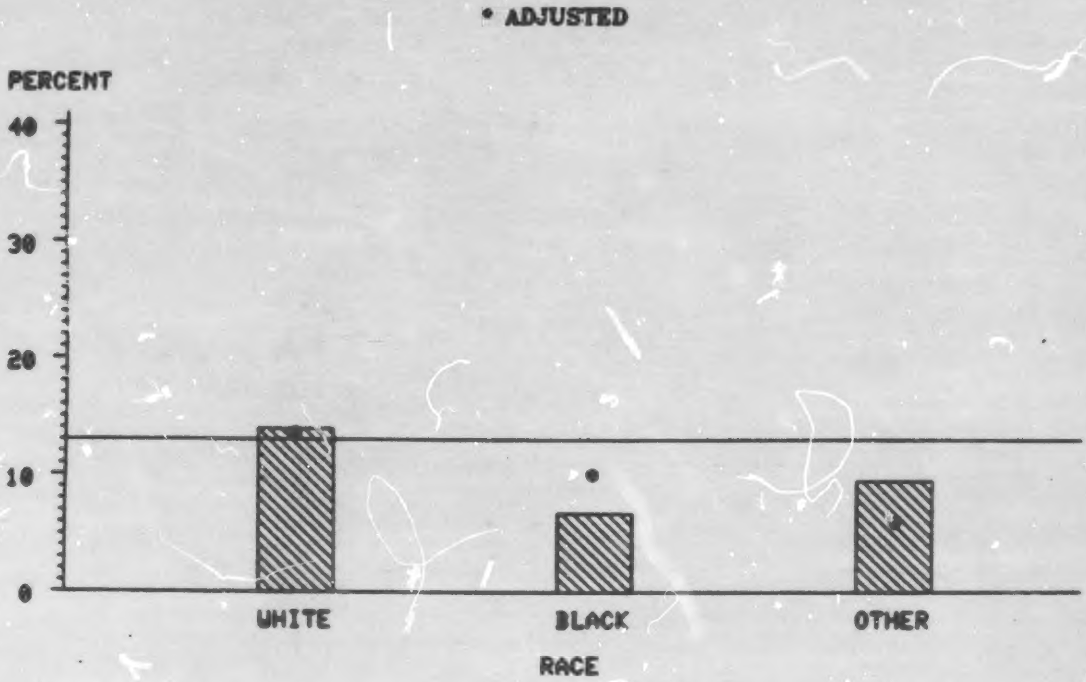


Females are more likely to attend classical music performances than are males, but the difference is not large.

When other background variables are equal, the difference is a little larger, indicating some associated factor(s) suppressed the unadjusted association between participation and gender (e.g. lower income and/or education among females). Thus, gender seems to be a moderately important explanatory factor in explaining attendance at classical music performances.

3b

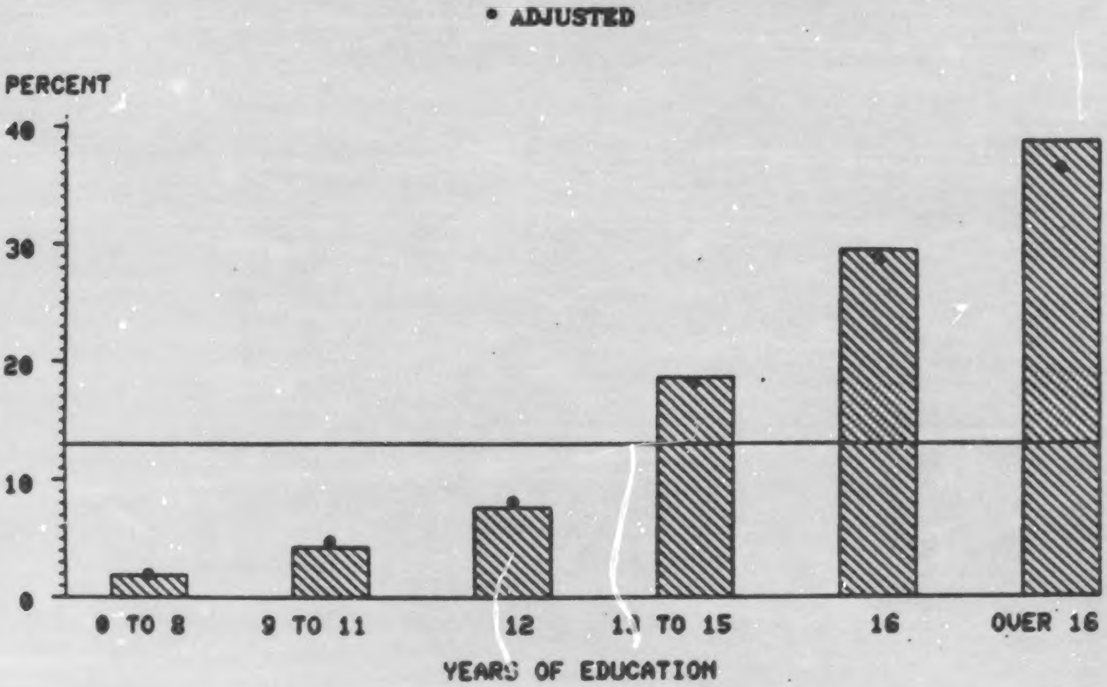
ATTEND CLASSICAL MUSIC BY RACE



Among racial groups, whites attend at a rate slightly above the national average; blacks and "other" races attend at rates somewhat below the average.

When other factors are held constant, whites' attendance rate stays essentially the same, but blacks' rate now ranks above "other" races' rate and "other" race participation drops further. In other words, background factors like education (lower among blacks) and age (lower in "other" races) suppress blacks', but inflate "other" races', attendance of classical music performances.

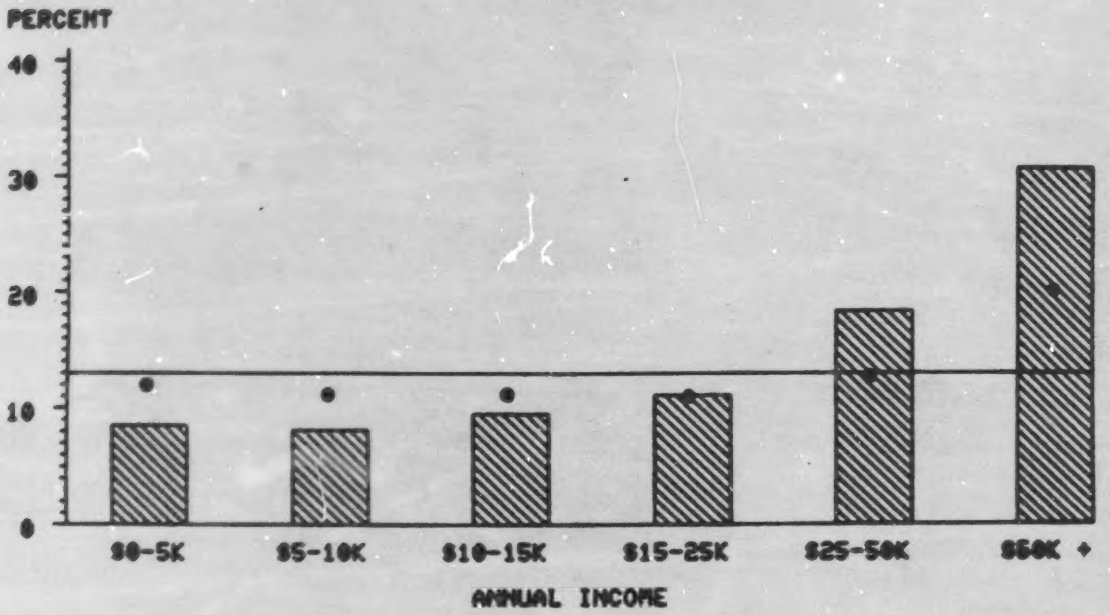
ATTEND CLASSICAL MUSIC BY EDUCATION



Attendance of classical music performances is strongly and positively associated with increased education. The watershed point is attending some college--those never taking college courses are considerably less likely to attend performances than the average person; those with at least some college are much more likely than the average to attend (up to three times as likely for those who attended graduate school).

The pattern is fundamentally unchanged after controlling for other background factors, indicating education is both an effective predictor of attendance at classical music performances and a strong explanatory variable independent of the other background factors studied.

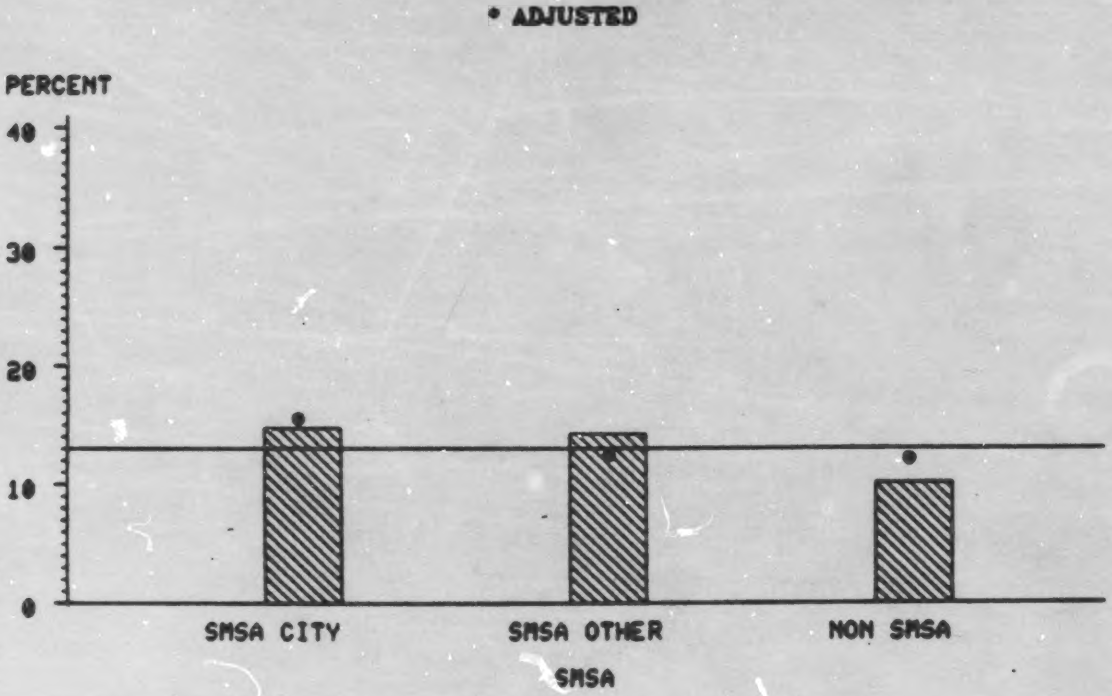
ATTEND CLASSICAL MUSIC BY INCOME



Attendance of classical music performances also rises with income levels. Starting with the category of $30,000-$49,999, the attendance rate climbs steeply above the national average.

If other background factors are held constant, however, the range of differences is considerably lessened. Attendance hardly varies among the lower income brackets, but still climbs steeply—though not as steeply as before adjustment—with the $30,000-$49,999 bracket. Thus, income explains little of the variation below the highest income brackets, once the influence of more powerful factors (like educational differences between income groups) has been removed.

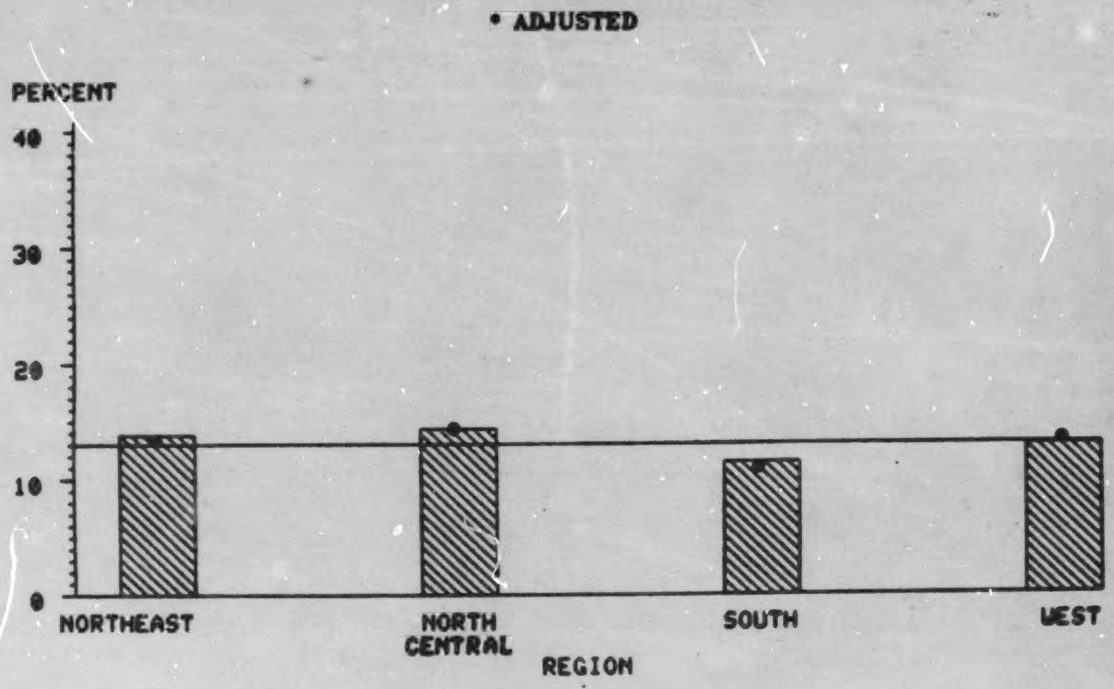
ATTEND CLASSICAL MUSIC BY SMSA



Those living in an SMSA, whether inside or outside of a central city, are slightly more likely to attend classical performances than the national average; those residing outside of an SMSA are lower than average in attendance.

Controlling for other background factors affects the attendance rates of central city residents very little. For these two latter categories, then, location *per se* does not seem to be a primary factor that explains differences in participation rates. Probably differential (i.e., higher) education among those in the suburbs accounts for the original unadjusted rate. However, the rate of those in an SMSA outside of the central city falls below the national average, approximating the rate of those residing outside of SMSA's.

ATTEND CLASSICAL MUSIC BY REGION

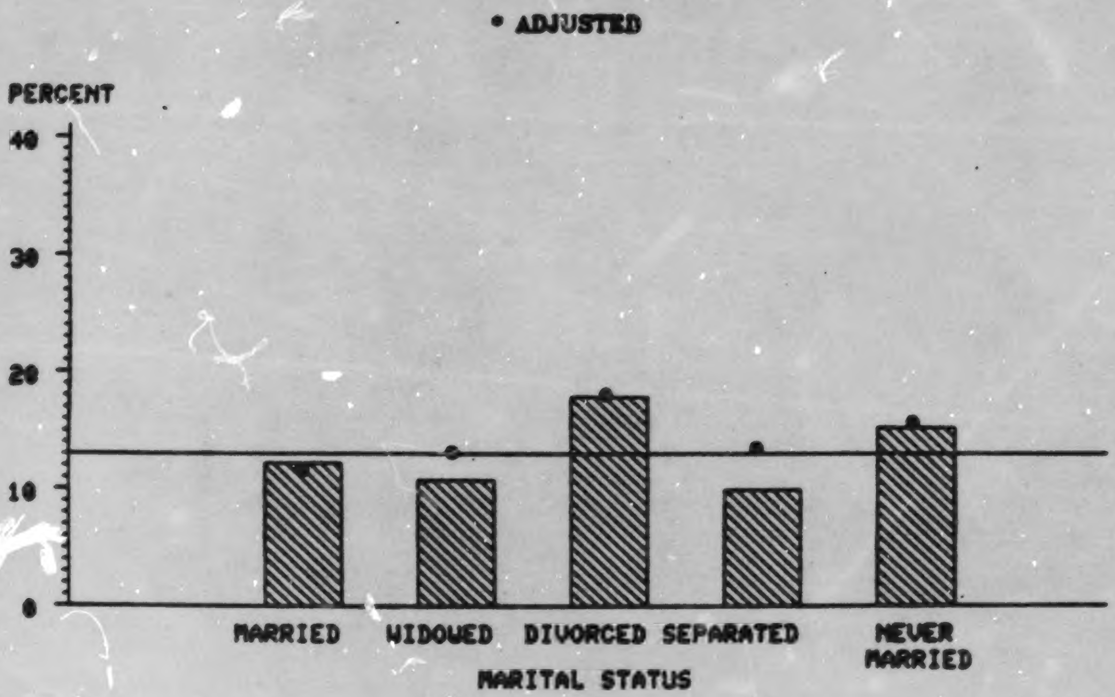


People residing in the South fall below the national attendance rate for classical music performances, while those living in the West are most likely to attend, and Northeastern and Northcentral residents are slightly above the national average.

Statistical control of other background factors shows they generally inflate the actual differences in participation rates between regions. Western participation falls and Southern participation rises slightly when other factors like education are considered. The actual rate for the Northcentral regions, however, is slightly deflated by other background factors. The lower rate in the South is only partially attributable to the other background factors, since it remains below average even after these adjustments.

41

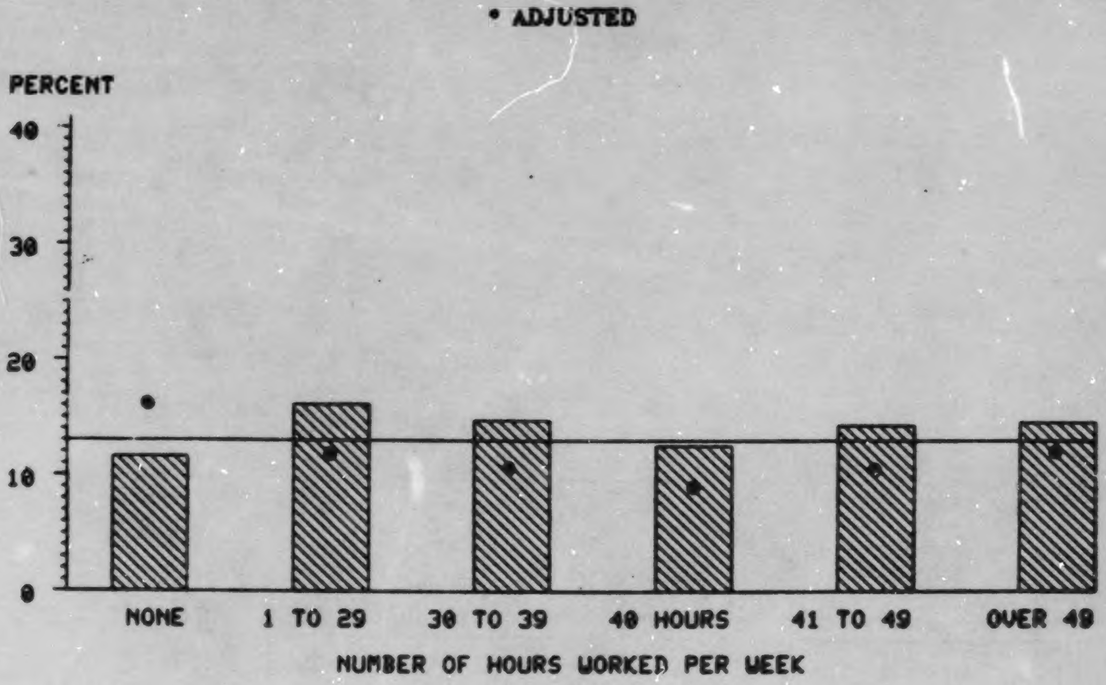
ATTEND CLASSICAL MUSIC BY MARITAL STATUS



Those divorced and those never married attend classical music performances at rates above the national average. Those married are somewhat less likely than average to attend, while those widowed or separated are least likely to attend.

When other background factors are held constant, both those widowed and those separated attend at levels close to the national average, while attendance in other categories hardly changes at all. Age, income, and type of work may be the major factors suppressing participation by widowed and separated people.

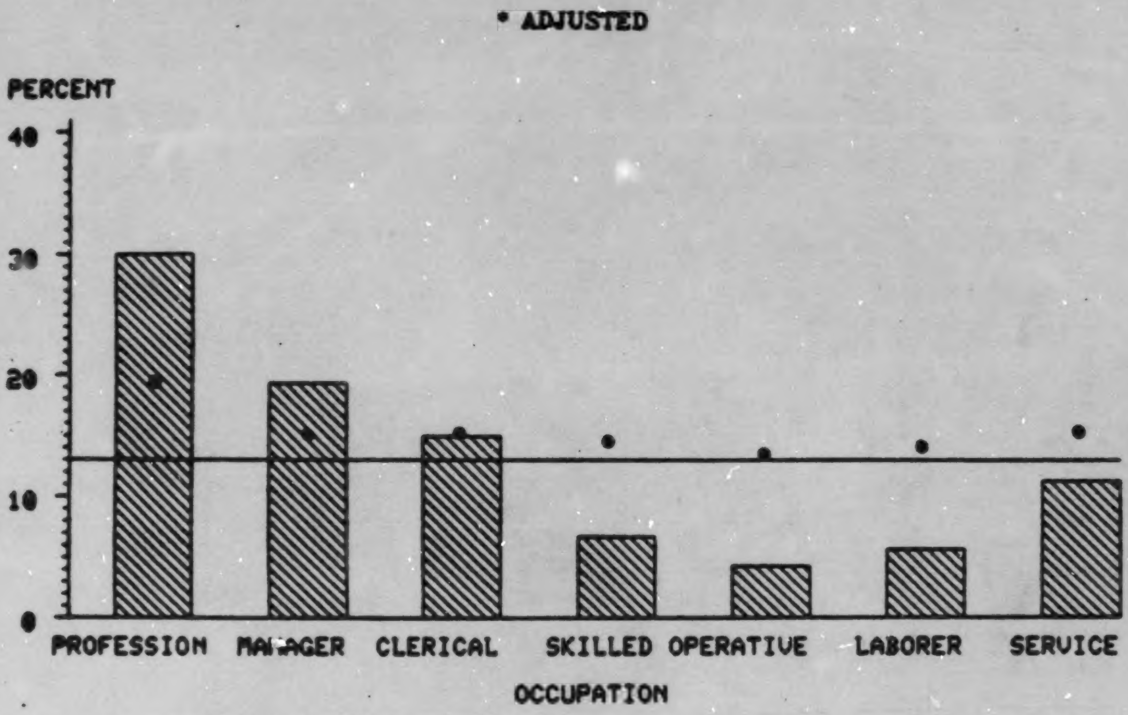
ATTEND CLASSICAL MUSIC BY HOURS WORKED



Those not working and those working 40 hours per week are less likely than average to attend classical music performances, while those who work both more and less than 40 hours per week are more likely to attend.

Interestingly, when all other background factors are held equal, all categories fall below the national average with one exception: those not working attend more than the national average. Age may be a factor here, as older groups who tend to attend more are also likely to be retired from work.

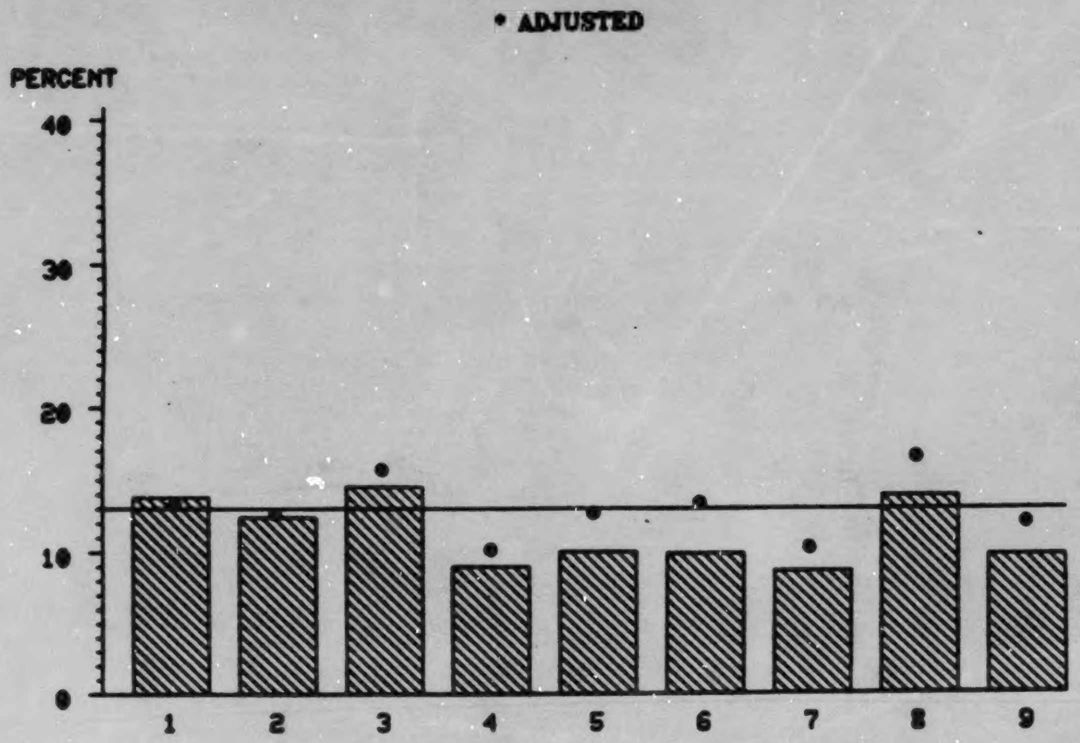
ATTEND CLASSICAL MUSIC BY OCCUPATION



Attendance rates vary greatly by type of work. Professionals attend at over twice the national average; students and managers also attend at rates well above average; craftsmen, operatives, and laborers at rates less than half the national average.

After adjusting for the other background variables, this variation is considerably reduced. All categories rise above the national average except those not working, those keeping house, students and the retired. Much of this fluctuation is probably due to controlling the effects of income and education which are closely associated with occupation.

ATTEND CLASSICAL MUSIC BY NUMBER OF CHILDREN



NUMBER OF CHILDREN UNDER 12

(1) No children
(2) One child, over age 6
(3) 2+ children, over age 6
(4) one child under 6
(5) one child under 6, one over 6
(6) one child under 6; 2+ over 6
(7) 2+ children under 6; none over 6
(8) 2+ children under 6; one over 6
(9) 2+ children under 6; 2+ over 6

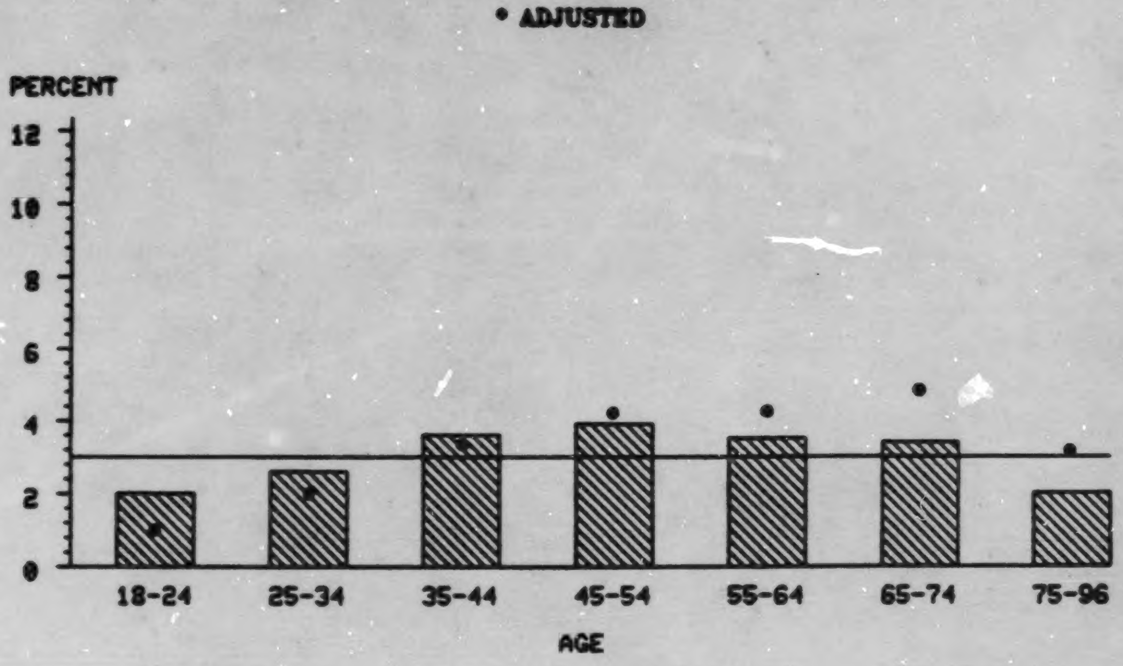
People without children at home are slightly more likely than average to attend classical music performances. Generally, those with children are less likely than average to attend with two exceptions: people with two or more children aged 6-11, and those with two children, one child 6-11 and one under 6.

When other factors are held constant, the pattern remains the same except for a rise in attendance among those with children and moreso in categories of people with very young children.

OPERA

The most important predictors of opera attendance are education, income, work hours, and occupation (variation of 9.3-7.3%). When other factors are controlled, the factors that account for the most variation are education, occupation, and age (8.5-3.9%).

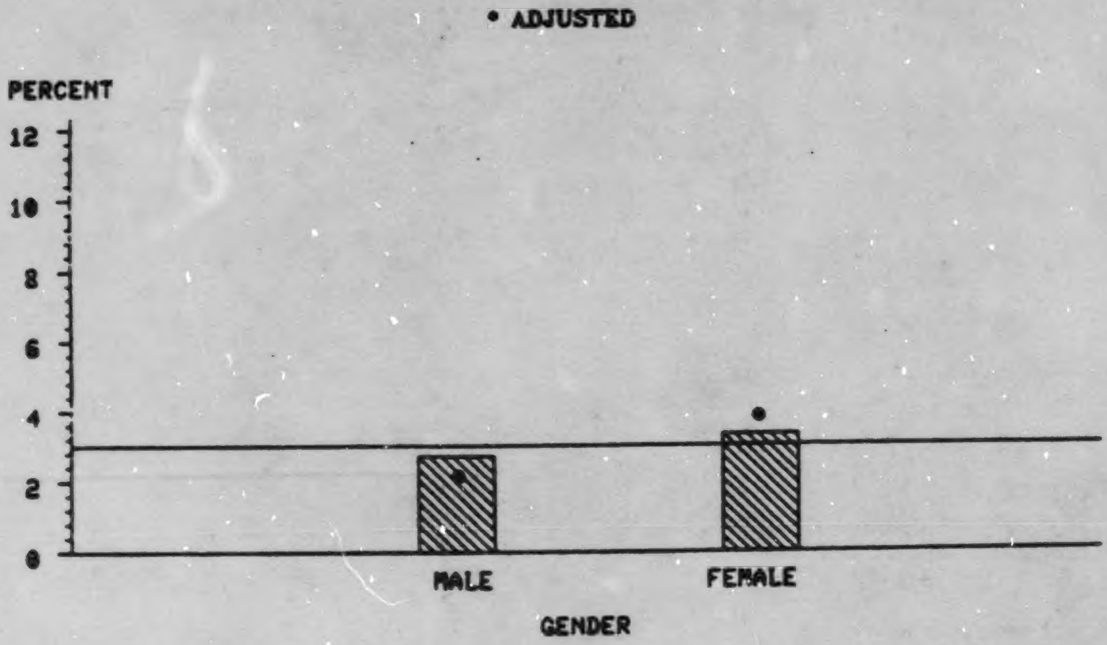
ATTEND OPERA BY AGE



As age increases, opera attendance also rises, reaching peak attendance rates in the 45-54 age categcty, slowly dropping in the 55-74 age group and then falling considerably below the national average in the over-75 group. Attendance rates definitely skew toward the older population.

When other factors are controlled for, the positive relationship between age and attendance is strengthened. Those over 35 are more than twice as likely to attend as those 18-24. Increasing age increases the likelihood of attendance, and attendance doesn't really drop off until the highest age category of people over 75. Even in this age category, participation remains above the national average, when factors like education, and work hours are taken into consideration.

ATTEND OPERA BY GENDER

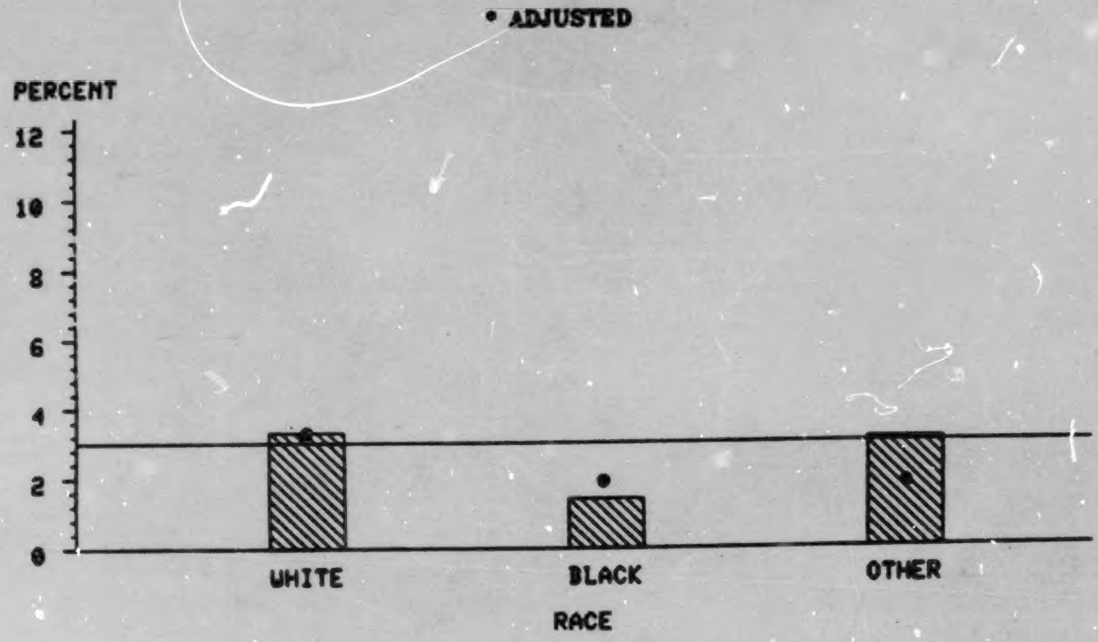


Females are more likely to attend opera than are males.

If the effects of other background variables like education are removed, differences between male and female attendance rates become even greater. Since females tend to have less education than males, and education is positively associated with attending the opera, education might be an important explanatory factor in these findings.

48

ATTEND OPERA BY RACE

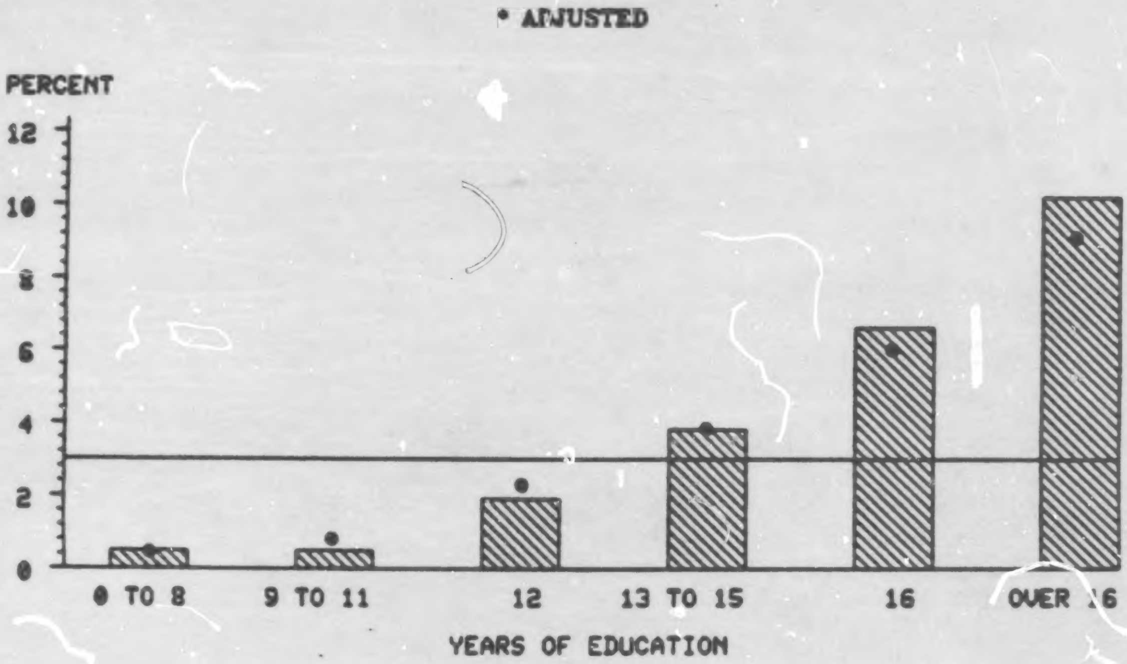


Blacks attend opera at less than the average national rate, while whites and "other" races attend slightly above the national average.

When the other background factors are held equal, black participation is increased and whites' rate is essentially unchanged, but "other" races' rate drops below average and is equal to blacks' rate. Thus, race has an effect independent of the other background factors for comparisons between blacks and whites, but not for comparisons between blacks and "other" races.

49

ATTEND OPERA BY EDUCATION

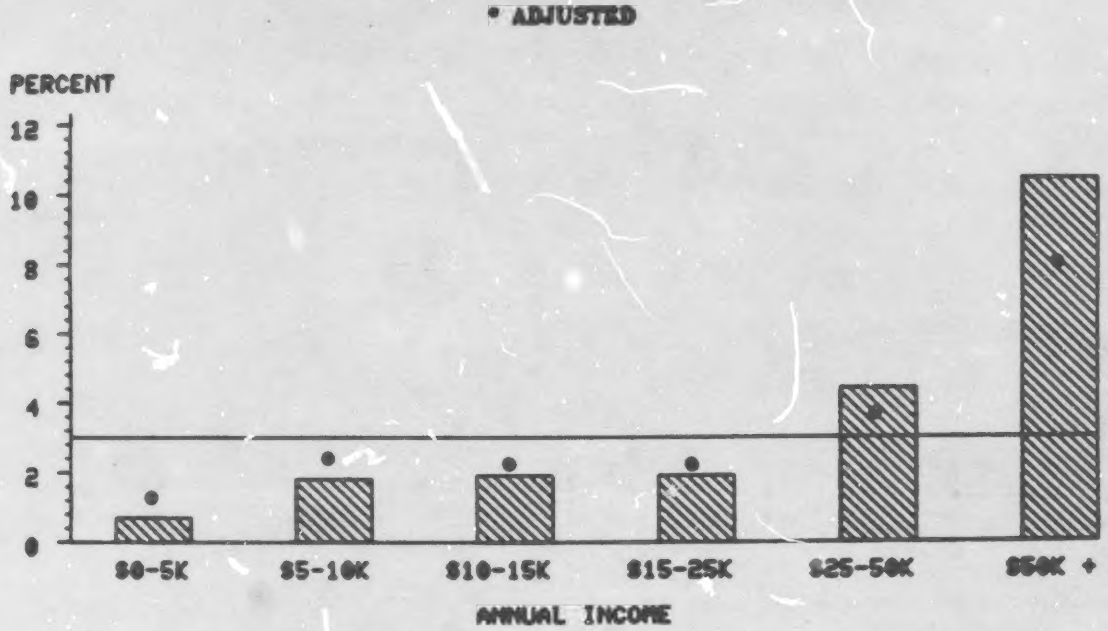


Better educated persons are more likely to attend opera performances. Those with less than a high school education attend at less than a third of the average rate; those with education beyond high school attend at rates progressively greater than the national average, until those with graduate school education attend at a rate three times the national average.

The pattern of rising attendance with increased levels of education remains fundamentally unchanged after adjusting for the effects of the other background variables. The linear relationship between education and attendance at the opera makes education an important explanatory factor.

50

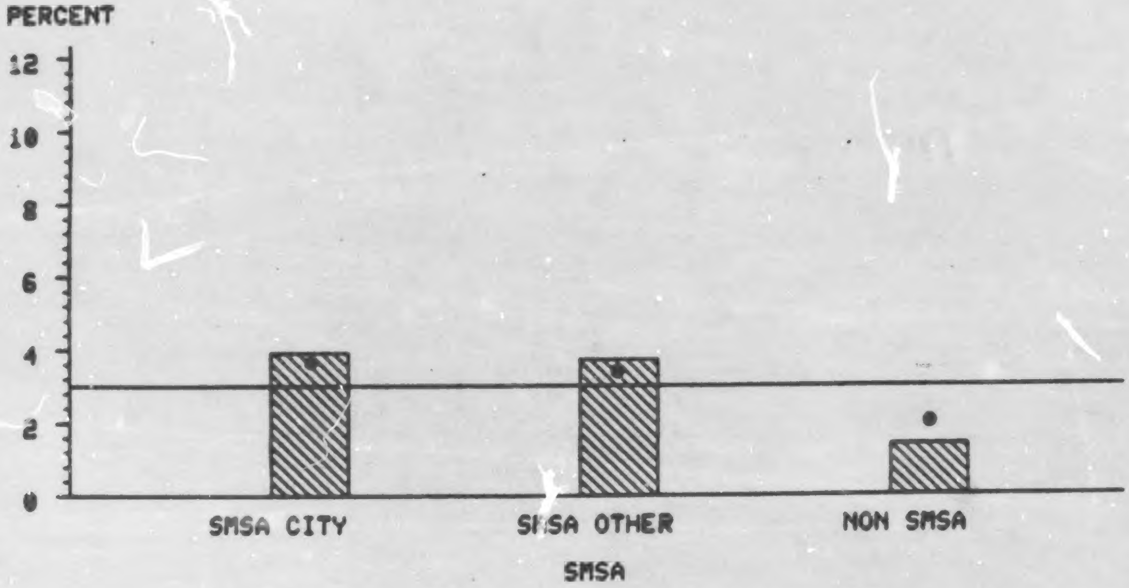
ATTEND OPERA BY INCOME



While those who are wealthier are more likely to attend operas, only those in the highest income bracket attend at a markedly higher rate.

The general trend, though somewhat diminished in range, is the same after adjustment. The close association between education and income probably accounts for these weaker results after the effects of income are isolated from those of other background factors.

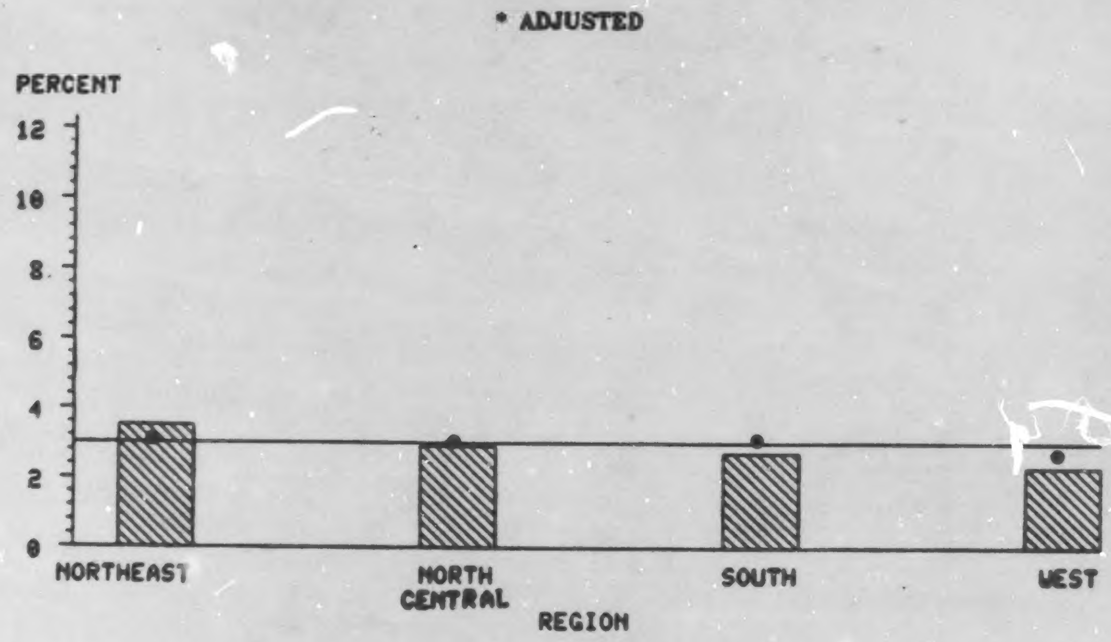
ATTEND OPERA BY SMSA



Opera attendance is slightly greater than the national average among those living within an SMSA, whether inside or outside a central city. Outside of SMSA's, residents attend at a rate of about half of the national average. These differences might reflect the greater availability of opera performance in urban areas compared to nonurban areas.

After equalizing the other factors, the pattern is essentially the same.

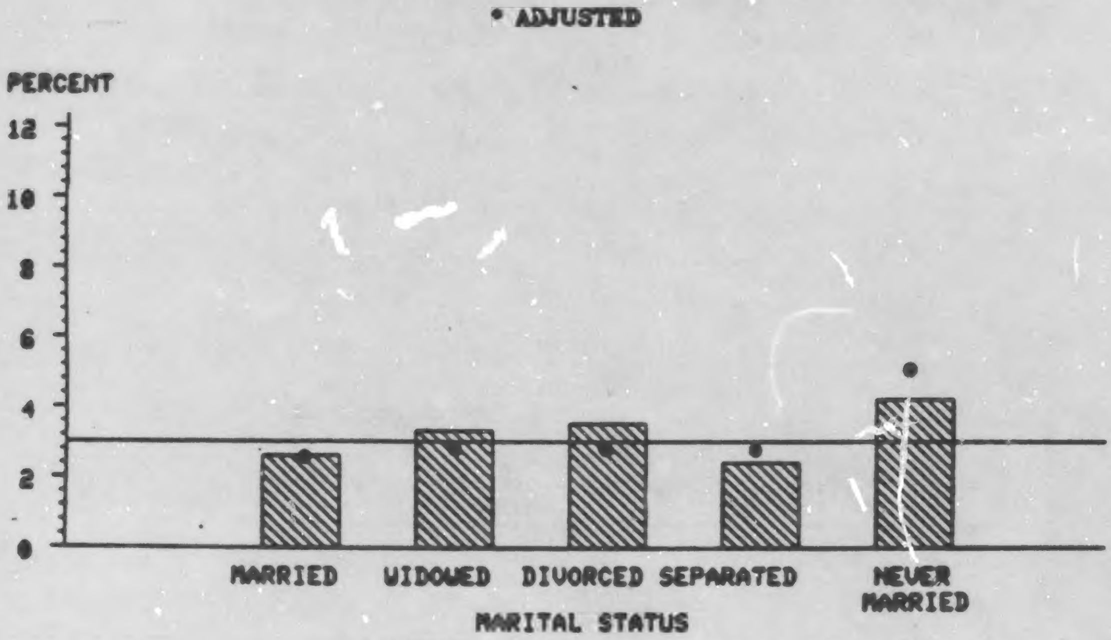
ATTEND OPERA BY REGION



Those living in the Northeast or the West are slightly more likely to attend opera than those living in the Northcentral or the South, and attendance in the south falls slightly below the national average.

When the impact of other background factors is removed, the participation rates in all regions are almost equal. This means the unadjusted differences in attendance are almost totally accounted for by differences in the other factors, and region has little value in explaining attendance at the opera. One crucial underlying factor might be the urban-rural dimension, since South and Northcentral regions tend to be more rural and rural areas have less opera available.

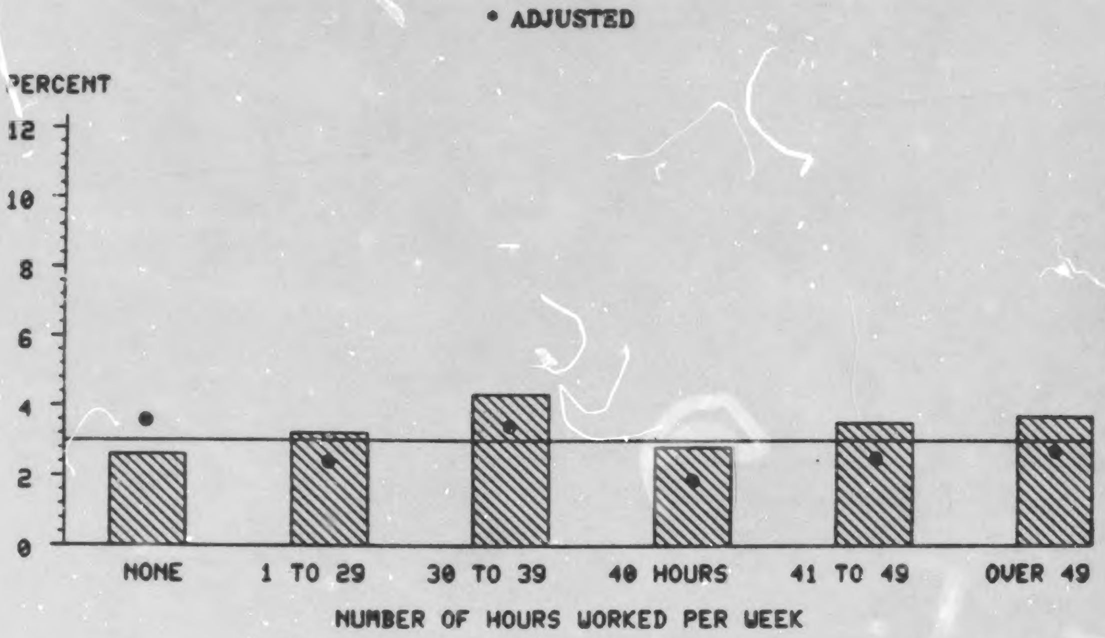
ATTEND OPERA BY MARITAL STATUS



Those never married, divorced, or widowed are more likely to attend opera than the average individual, while married or separated individuals attend at slightly less than average rates.

Adjustment for the effects of the other background variables notably increases the never married rate and the separated rate, moving the latter to above the national average and slightly decreases married and divorced participation. Age, for example, might have suppressed participation in the never married category, as income might have for the separated category.

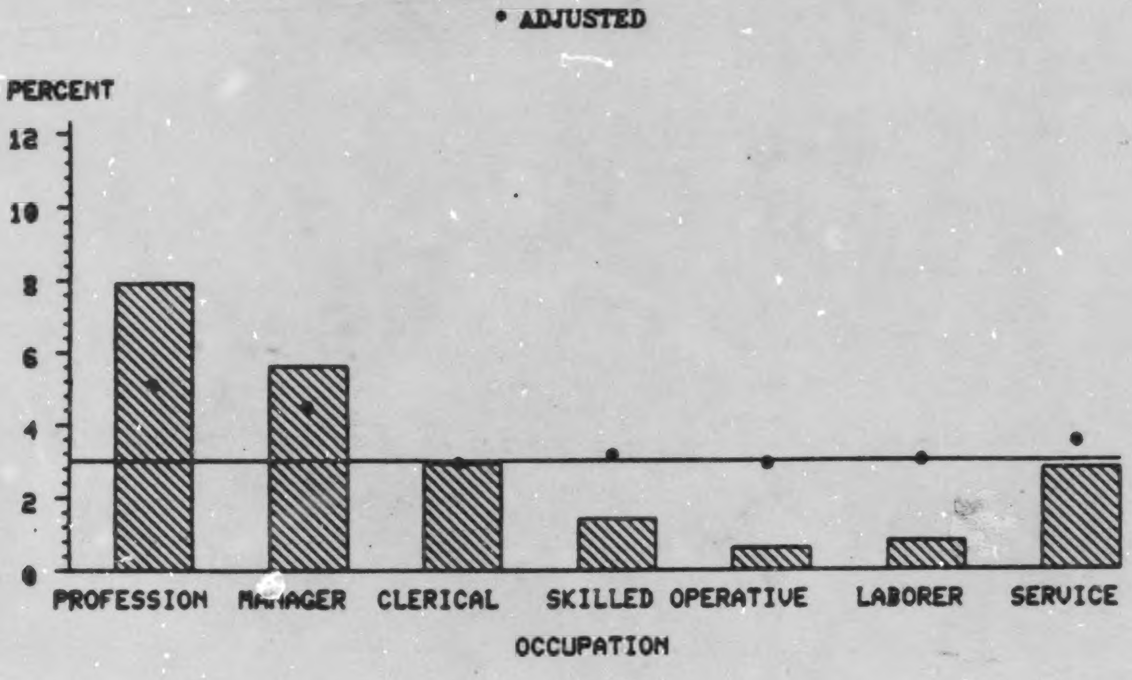
ATTEND OPERA BY HOURS WORKED



Those not working or people working 40 hours a week attend at below the national average. Those working either less or more than 40 hours are more likely than average to attend opera.

Other factors being equal, however, attendance rates drop in every category of working people, while they rise among people not employed. Adjusted attendance rates show only this category and people working 30 to 39 hours attending at rates above the average.

ATTEND OPERA BY OCCUPATION

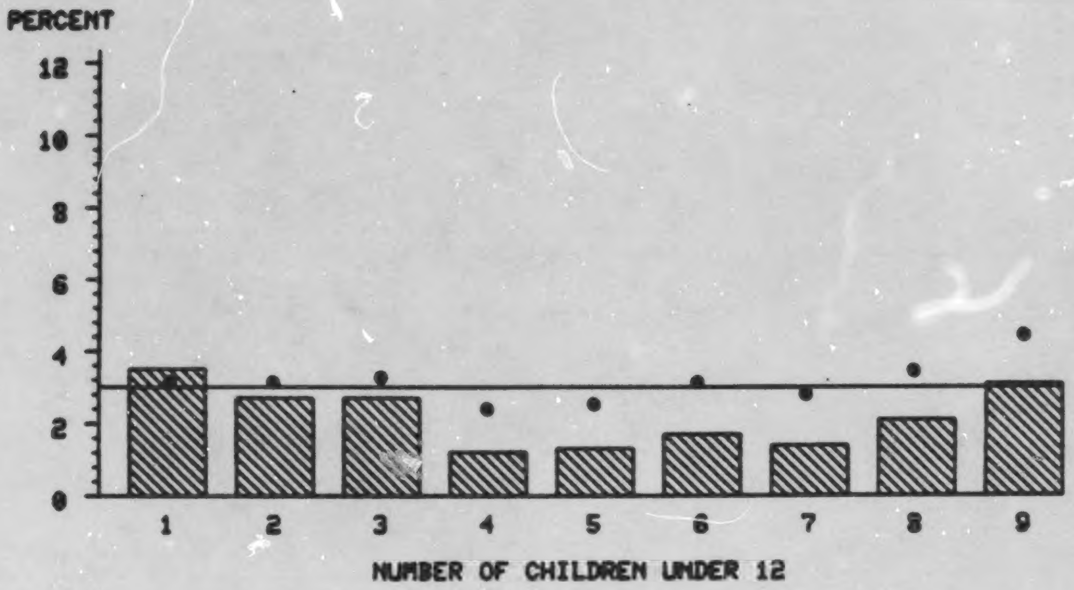


Among occupational groups, professionals and managers stand out as disproportionately more likely to attend opera, at rates roughly twice the average. On the other hand, operatives, laborers, and craftsmen attend at rates notably below the average.

After other background factors are held equal, all paid occupations attend at rates matching or exceeding the national average, whereas unpaid categories--not working, keeping house, student, retired-- are below average. The higher education level of professionals and managers might have inflated their unadjusted attendance rates, although occupation itself has some explanatory power.

ATTEND OPERA BY NUMBER OF CHILDREN

• ADJUSTED



(1) No children
(2) One child, over age 6
(3) 2+ children, over age 6
(4) one child under 6
(5) one child under 6, one over 6
(6) one child under 6; 2+ over 6
(7) 2+ children under 6; none over 6
(8) 2+ children under 6; one over 6
(9) 2+ children under 6; 2+ over 6

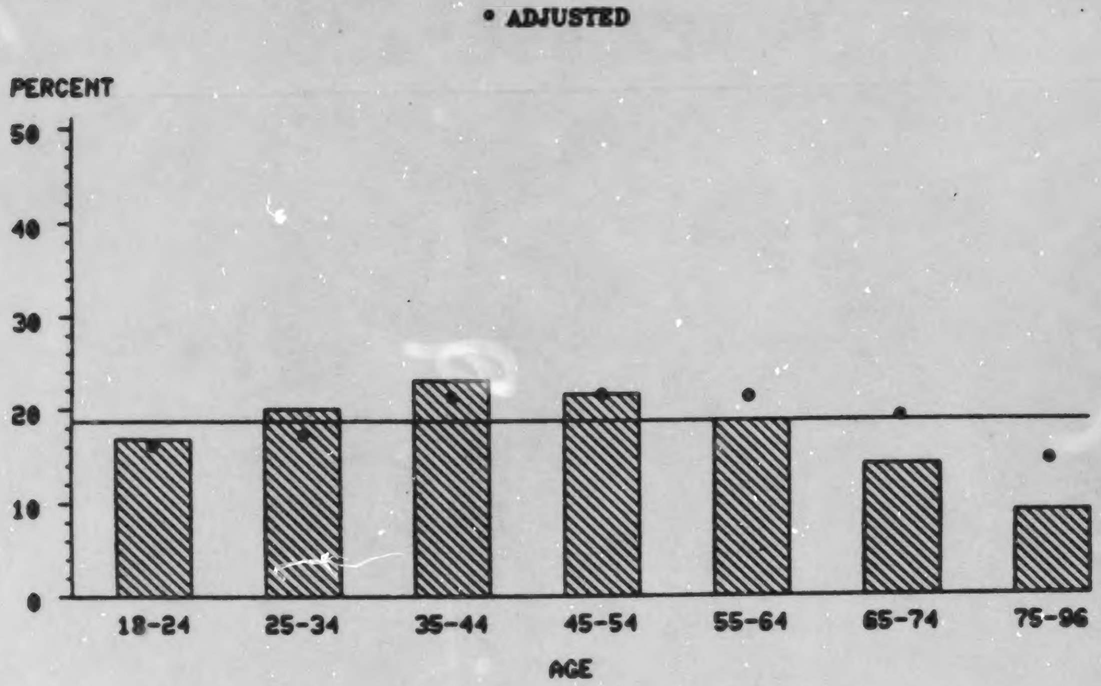
In contrast to childless individuals, those with children generally attend opera at less than the national average. The one exception is households with two or more children in each age category measured (0-6 years and 6-11 years).

When adjustments are made for the impact of the other background factors, the attendance rates rise for those with children (particularly with older children) while the rate for those without children in the household falls to approximate the average. Thus, much of the variation in participation is due to other factors, such as age. For example, people with older children tend to be older and age is positively related to attendance.

MUSICAL PLAYS AND OPERETTAS

The best predictors of attending musicals are education, occupation, and income (variations of 40.7-21.3%). When other factors are held equal, the same predictors as well as race are the best explanatory factors (variations of 32.1-10.4%).

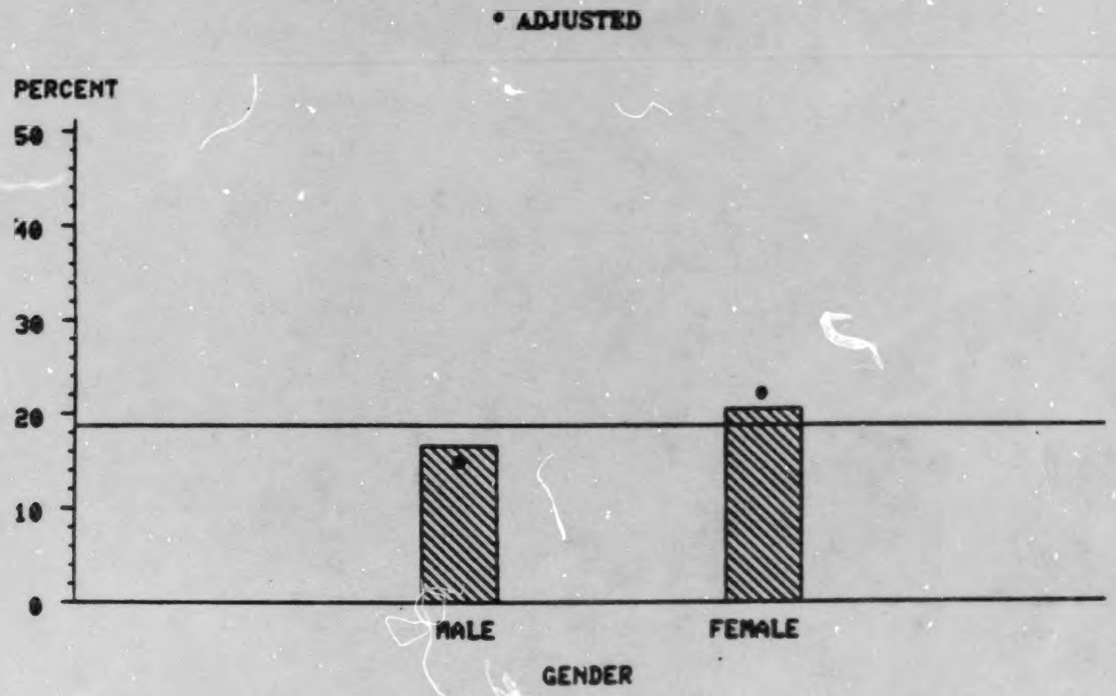
ATTEND MUSICALS BY AGE



Attendance rates for musicals rises to a peak among those aged 35-44, and then falls for older age groups.

The same pattern holds in attenuated form after controlling for the influence of other factors. Much of the lower rates for the oldest groups is not due to age per se, but to other factors like education and income which may be lower in the highest age categories.

ATTEND MUSICALS BY GENDER

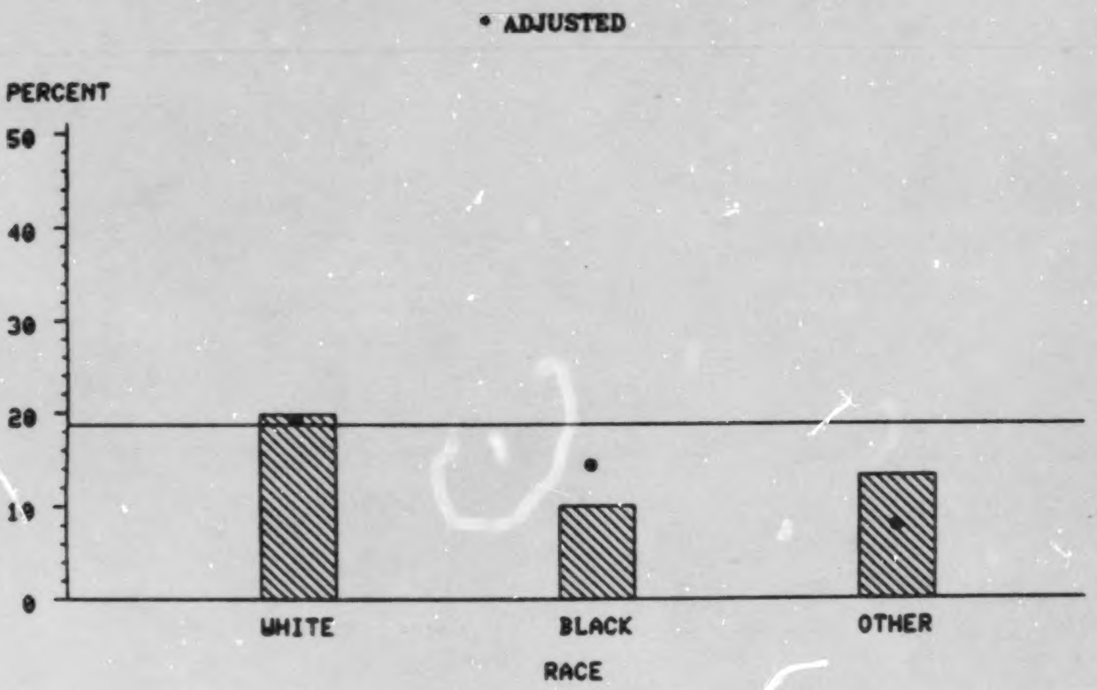


A greater percentage of females than males go to musicals.

When other factors are equalized, the differences between male and female attendance grow more pronounced. The lower education and income levels of females might be important factors in explaining sex differences in attending opera.

60

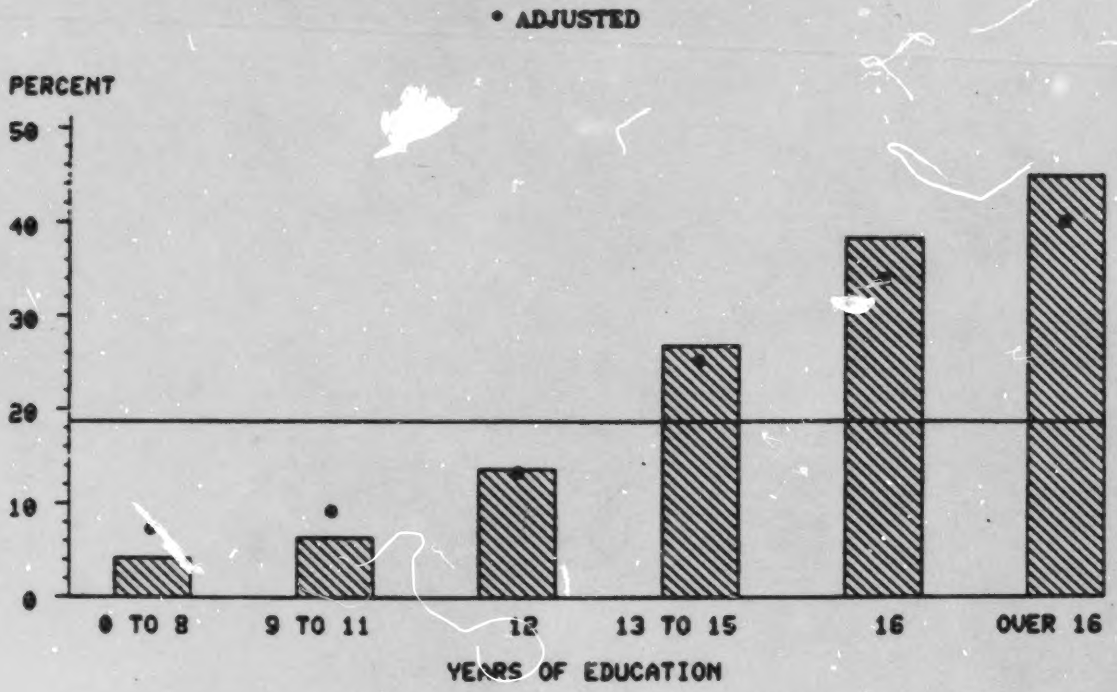
ATTEND MUSICALS BY RACE



Whites are slightly more likely than average to attend musicals, while blacks and "other" races' attendance rates are lower than the national average.

After adjusting for the effects of other background factors, the most noticeable change is a reversal of the rankings of blacks and "other" races. The attendance rates of blacks and "other" races are strongly explained then by other factors (possibly education and income), whereas the attendance rates of whites are largely independent of the influence of the other factors.

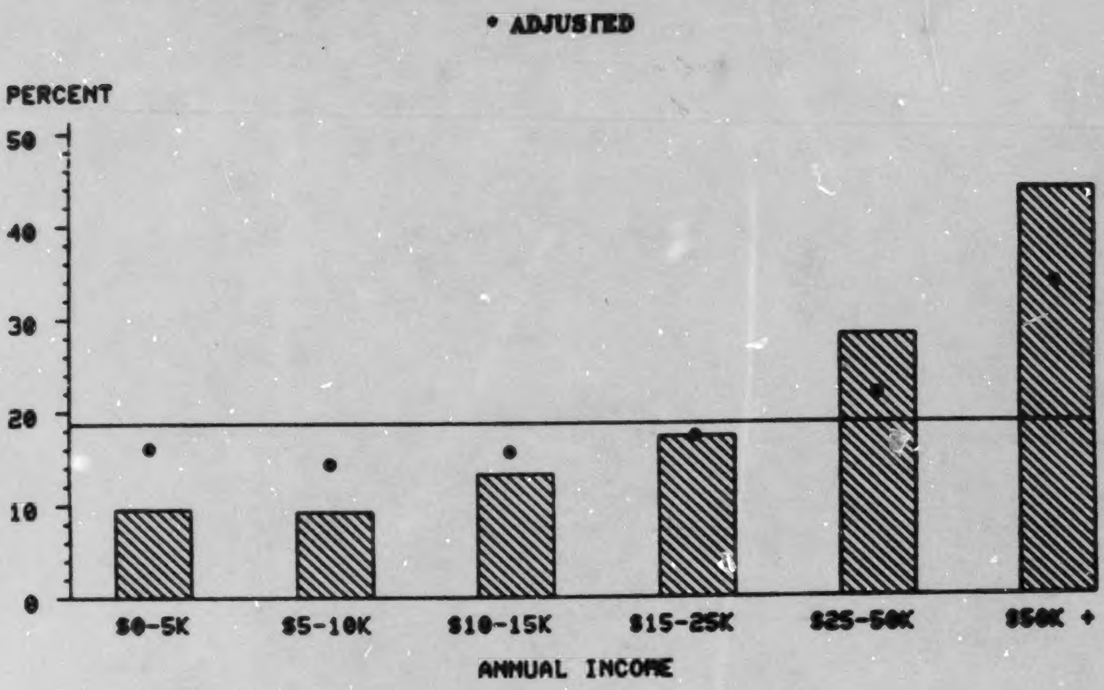
ATTEND MUSICALS BY EDUCATION



Education is a strong predictor of attendance at musicals. Better educated persons are much more likely to attend. The rate crosses the national average with exposure to college education.

The pattern is essentially the same after equalizing other background factors. Education retains its linear relationship to attendance at musical performances and remains an important explanatory factor in and of itself.

ATTEND MUSICALS BY INCOME



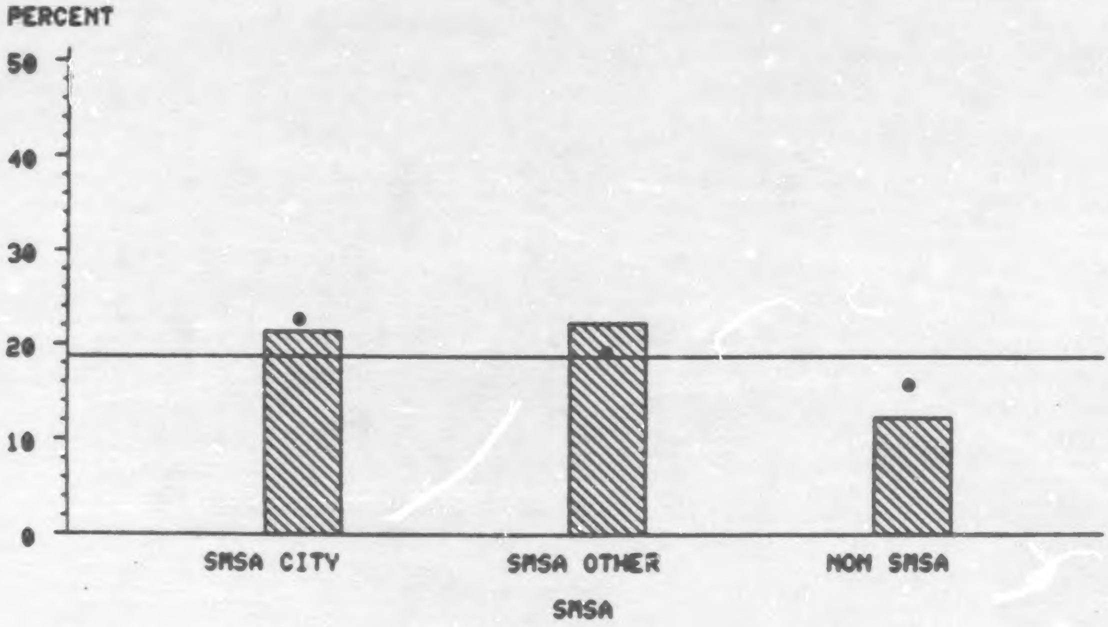
Attendance of musicals rises with income, crossing the national average with the category of $30,000-$49,999. Compared to persons in the lowest income brackets, those in the highest brackets are two to three times more likely to attend.

The same pattern generally holds after adjustment for the impact of other factors, although the relationship between income and attendance is less strong after underlying factors like education and occupation have been taken into consideration.

63

ATTEND MUSICALS BY SMSA

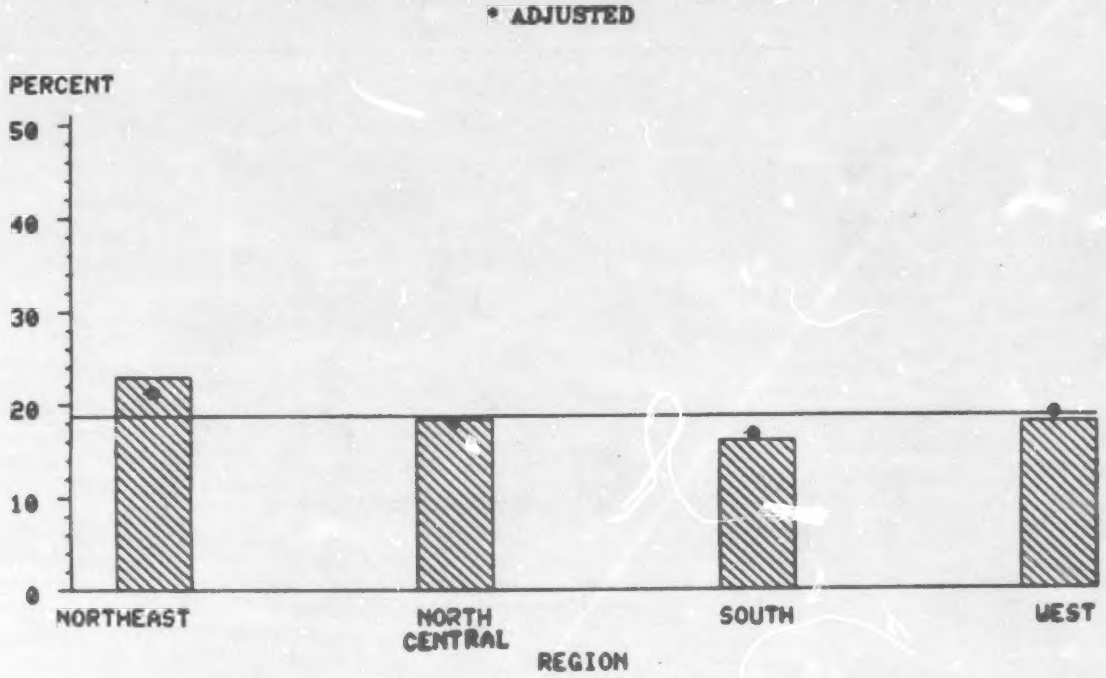
● ADJUSTED



Residents of SMSA's, both inside and outside of central cities, attend musicals at a considerably higher rate than those residing outside of SMSA's

After adjusting for the effects of other factors, residents of central cities of SMSA's are slightly more likely to attend than are residents of SMSA's not within a central city, residents in non SMSA areas show increased attendance but still fall below the national average. Since musical theater is most often found in urban centers, less access to musical performances might influence this pattern.

ATTEND MUSICALS BY REGION

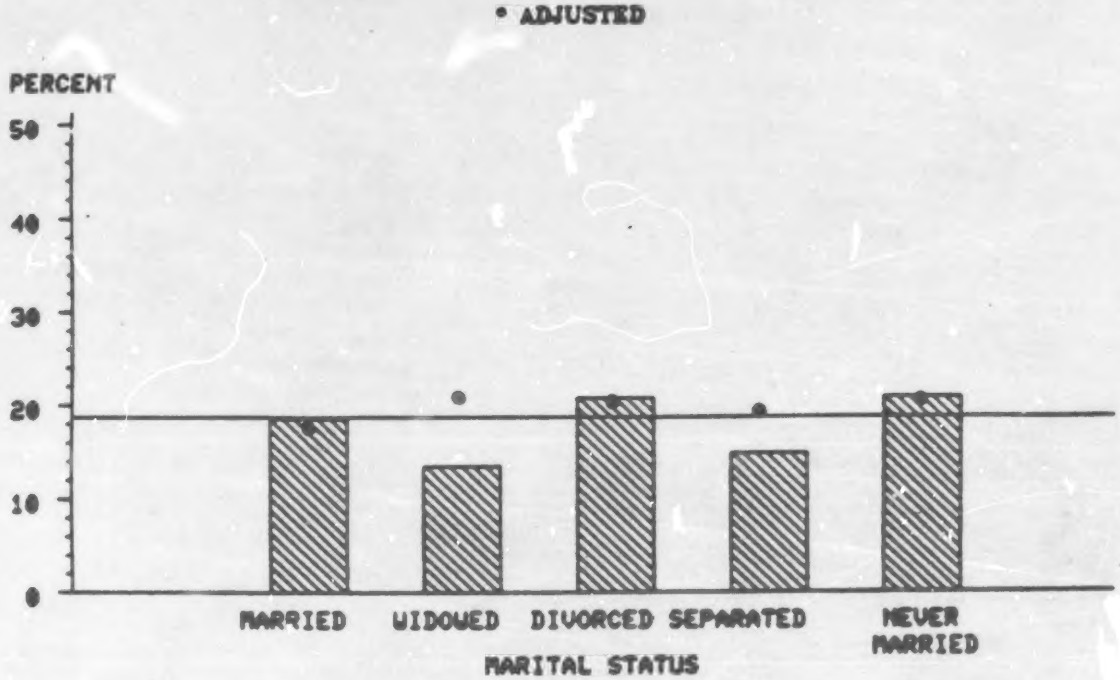


The Northeast and the West have higher than average attendance rates for musicals. The Northcentral has an about average rate, while the South has a lower than average rate.

Adjustment for the impact of other factors moves all rates toward the average. For example, over half of the difference in rates between the South and the West is due to the impact of other factors. Still, residents of the South have the lowest attendance rate even when the effects of other background factors are removed. Differential regional educational levels as well as varying availability of musicals are likely to be important factors here.

65

ATTEND MUSICALS BY MARITAL STATUS

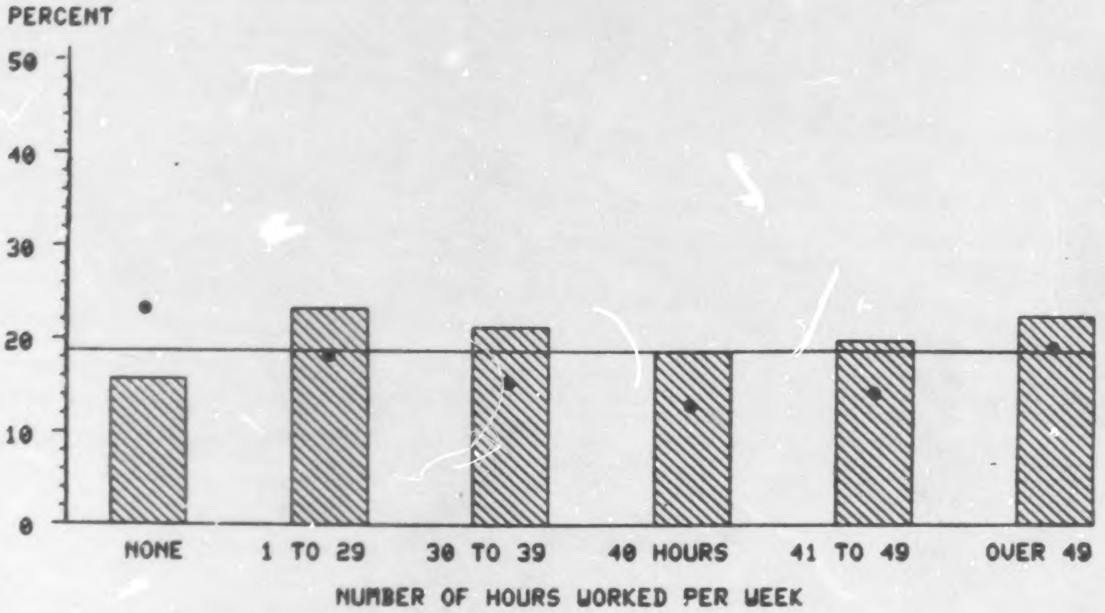


The married, never married, and divorced are more likely to attend musicals than the average person. People widowed and separated attend less than the national average.

When other factors are held equal, all groups, except for those married, demonstrate roughly the same above average rate of attendance. The low unadjusted rates for widowed and separated people were probably due to related factors like income, age and education.

66

ATTEND MUSICALS BY HOURS WORKED

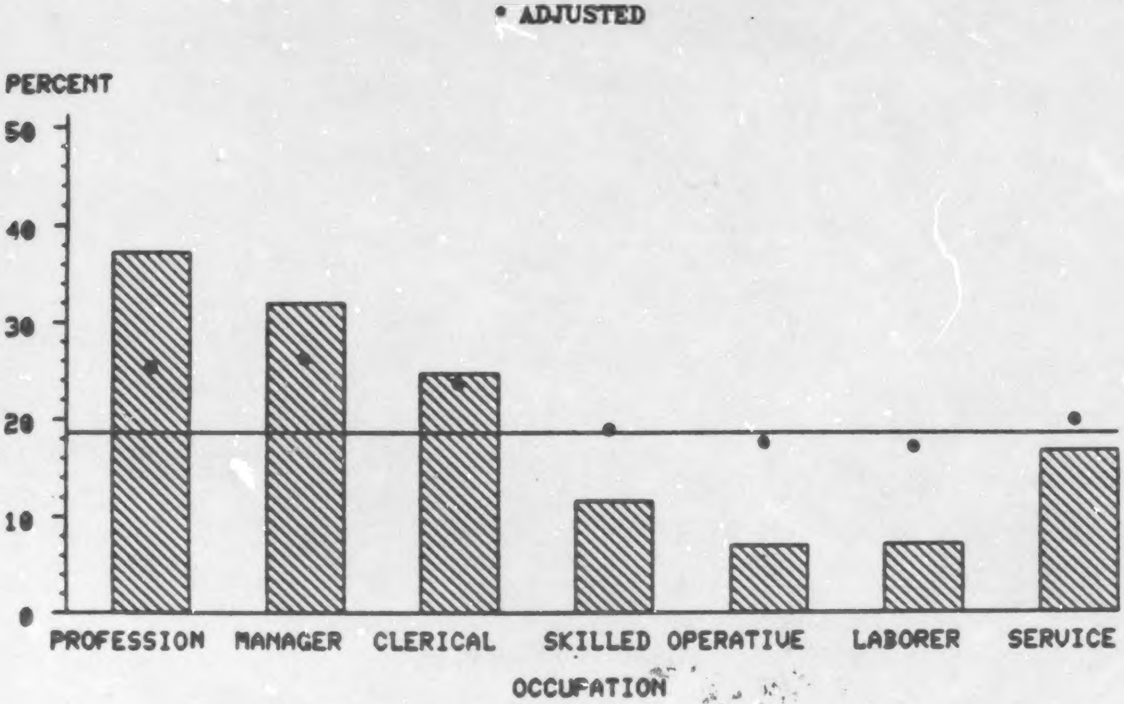


Employed people with long work hours are no less likely to attend musicals than those who work less than 40 hours per week. People with no work hours are least likely to attend musicals.

However, after adjustment for other factors (such as education and age), people with no work hours are most likely to attend musicals. Those with longest work hours are also slightly above average in attending musicals; working an overall U-shaped or curivilinear relation between work hours and attending musicals.

67

ATTEND MUSICALS BY OCCUPATION

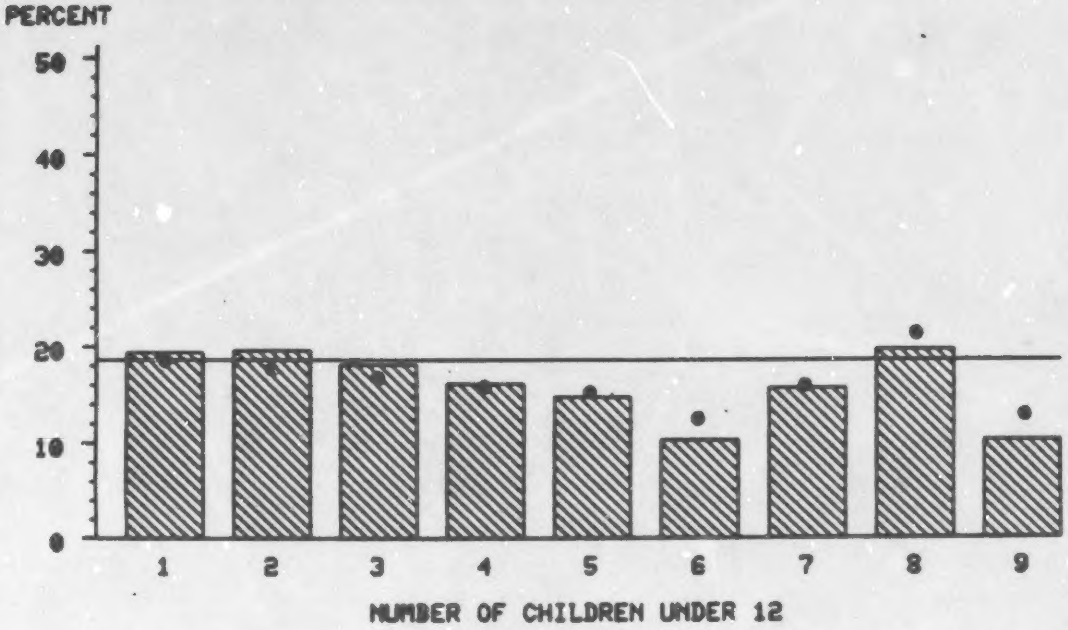


Managers, professionals, salespersons and clerks, and students have the highest rates for attending musicals; all other occupational groups have below average rates of attendance.

When other background factors are taken into consideration, these differences between occupational groups lessen. Professionals, managers and students show lower rates of attendance, and all other groups, except those not working and homemakers, rise to approximate the average.

ATTEND MUSICALS BY NUMBER OF CHILDREN

• ADJUSTED



(1) No children
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(4) one child under 6
(5) one child under 6, one over 6
(6) one child under 6; 2+ over 6
(7) 2+ children under 6; none over 6
(8) 2+ children under 6; one over 6
(9) 2+ children under 6; 2+ over 6

Those with no children tend to have higher attendance rates for musicals than those with children, particularly younger children.

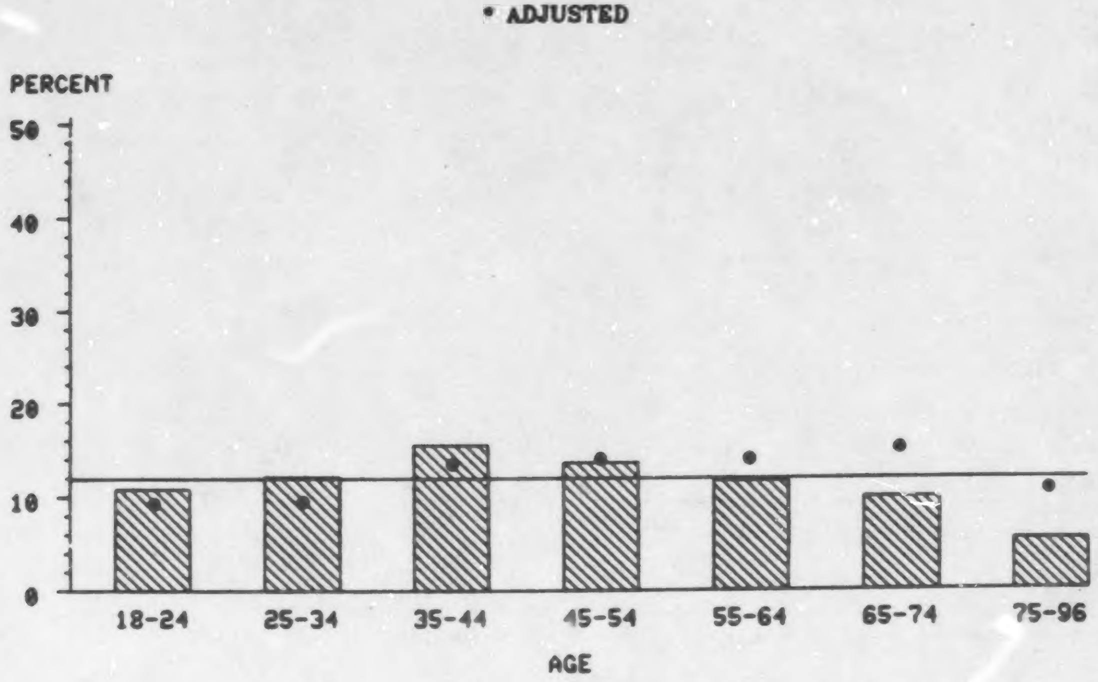
Adjustments for the effects of the other factors only marginally change the overall pattern. Clearly, presence of children inhibits attendance at musical performances.

NON-MUSICAL PLAYS

Education and occupation are the most important predictors of attending plays (variations of 34.6-23.4%). After adjustments for the influence of other factors, education is by far the best predictor (variation of 29.6%).

10

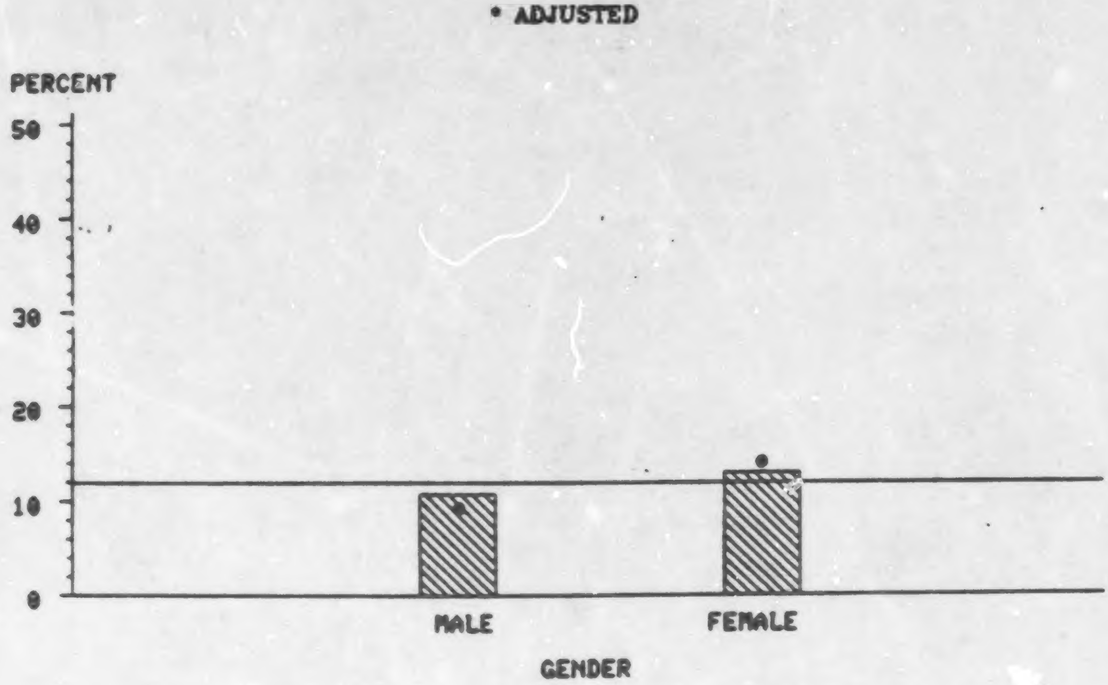
ATTEND PLAYS BY AGE



Middle aged persons, those in the 35-44 age category, are most likely to attend plays. The rate rises above the national average among the 25-34 year group and falls below average in the 65-74 category.

However, if the effects of the other background factors are removed, the attendance rate is considerably higher among the older segments of the population, and the earlier curvilinear relationship between age and attendance disappears. This effect is probably a result of taking the often lower income and education of older people into account.

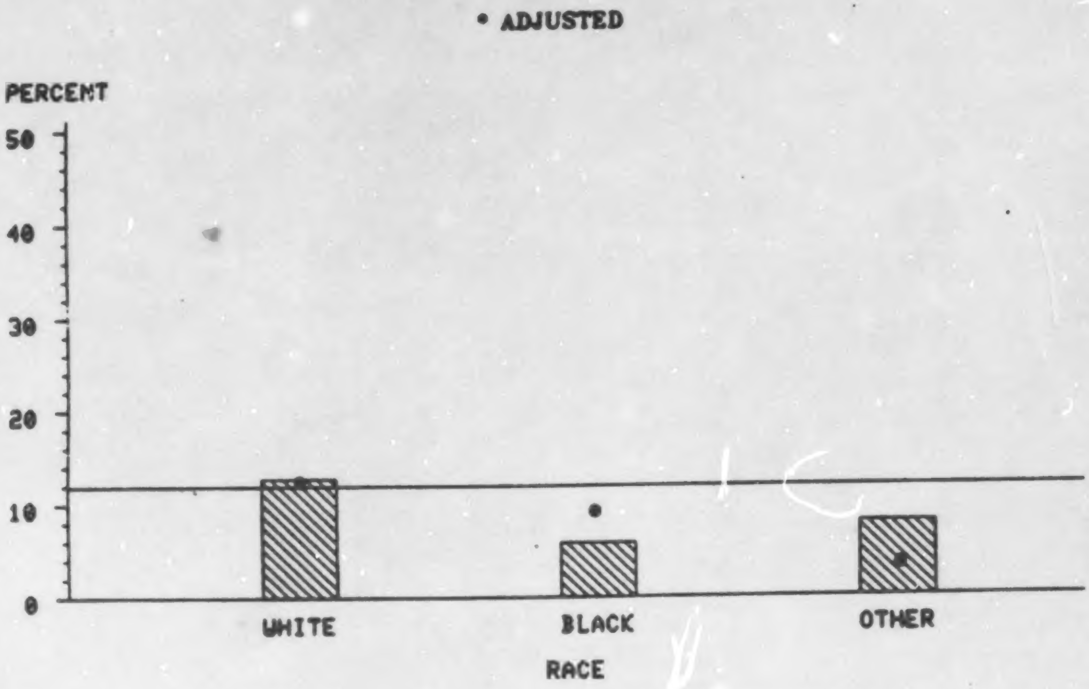
ATTEND PLAYS BY GENDER



Females are more likely to attend plays than are males.

When other factors are held constant, females are even more likely to attend than are males. Once again, differential income and education may have suppressed the original relationship between gender and play attendance in the unadjusted figures.

ATTEND PLAYS BY RACE

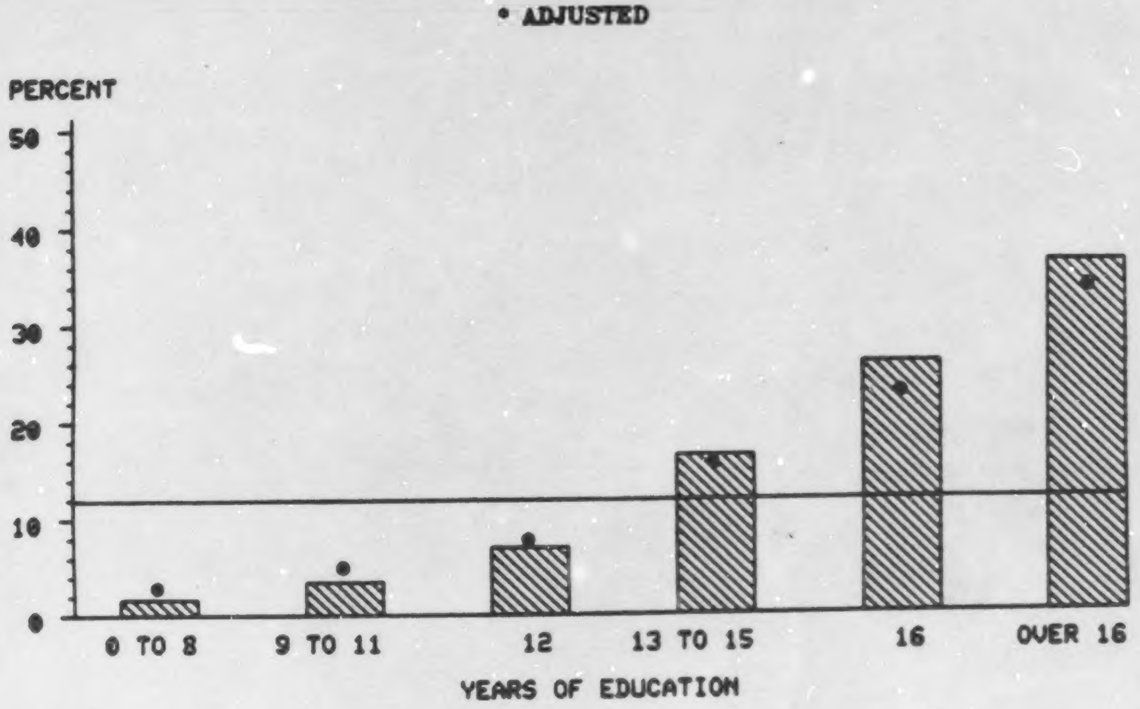


Whites attend plays at a rate slightly higher than the national average, while blacks and "other" races attend at respectively one-half and two-thirds of the national average.

When other factors are held equal, however, the positions of blacks and "other" races are reversed, although both remain below the national average. The white attendance rate is only slightly decreased. Attendance rates of blacks and people of "other" races are more strongly influenced by background factors than white attendance rates are.

73

ATTEND PLAYS BY EDUCATION

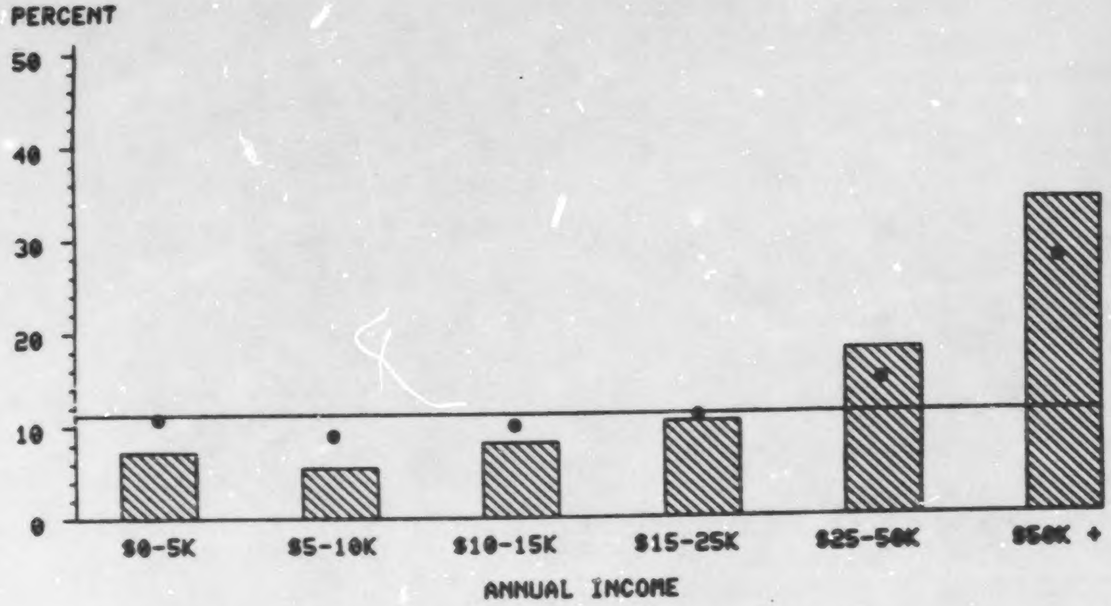


Attendance rates rise sharply with education. A large increase occurs between high school graduates and those with some college. The strength of education as a predictor is evident by comparing the extremes: those with a grade school education participate at about one-sixth the national rate; those who attended graduate school participate at over three times the national average.

This pattern is essentially the same after controlling for the effects of other factors, and education maintains its linear relationship with attendance at plays. Education is a strong factor in explaining such attendance, independent of other background factors.

74

ATTEND PLAYS BY INCOME

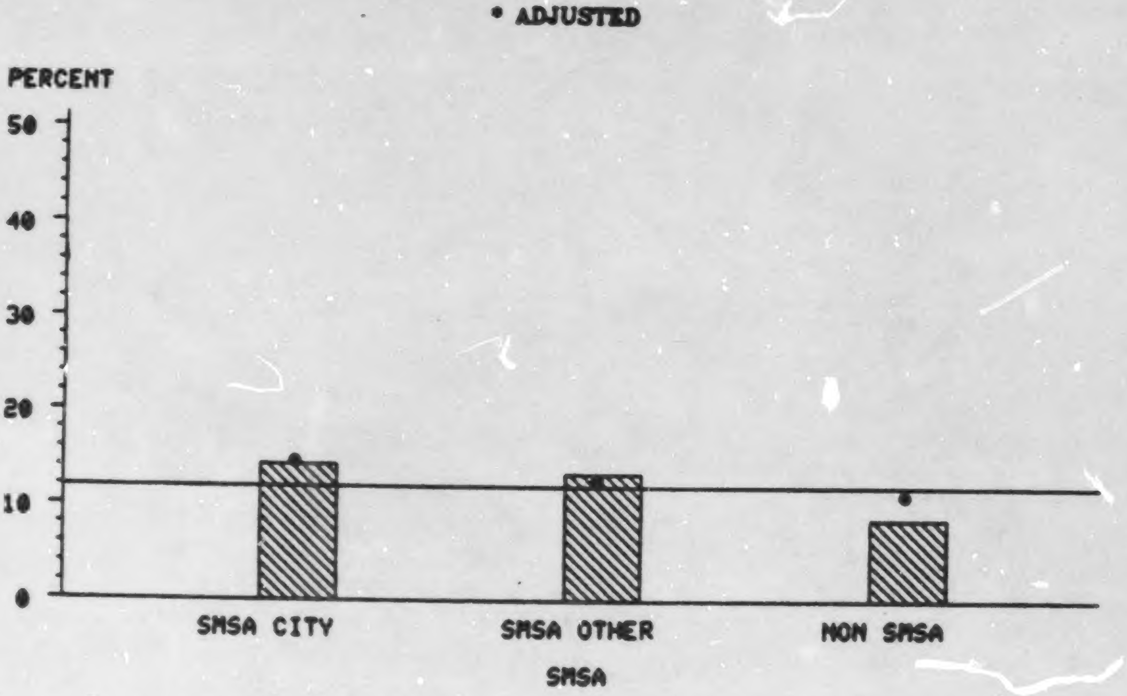


Although those with incomes under $10,000 attend at a slightly higher rate than those earning $10,000-$14,999, the overall trend is one of increased attendance as household income rises. However, only income brackets over $30,000 are associated with above average attendance rates.

A small yet noticeable change after adjusting for the other factors is that those earning less than $10,000 have a higher attendance rate than the next two higher income brackets. The next three income categories also show higher rates of attendance, indicating that other factors were suppressing attendance in these categories in the unadjusted figures. Only the top income category showed less attendance when other factors were considered.

75

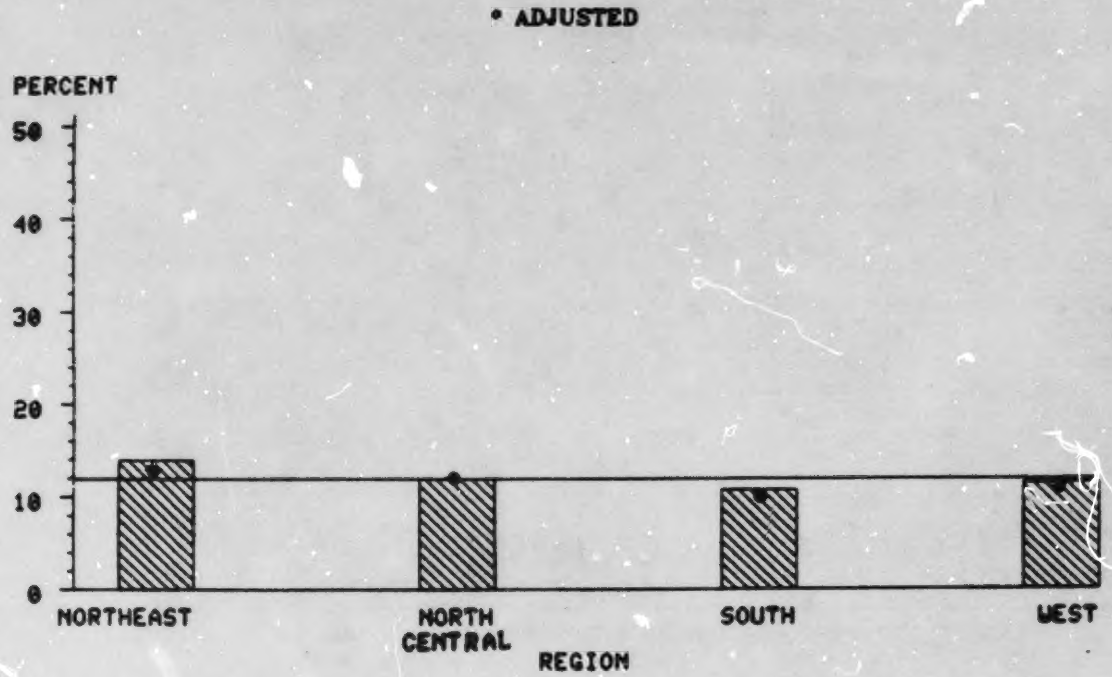
ATTEND PLAYS BY SMSA



Residents of SMSA's attend at a rate about 1-2% above the national average; residents outside of SMSA's, where performances may be less available, attend at a rate about 3% below the national average.

After adjustments for other factors, the rankings are unchanged, but differences between the three categories decrease, until residents outside SMSA's attend slightly more than residents within an SMSA but not in a central city. Background factors affect attendance in these two groups, but leave city attendance unchanged.

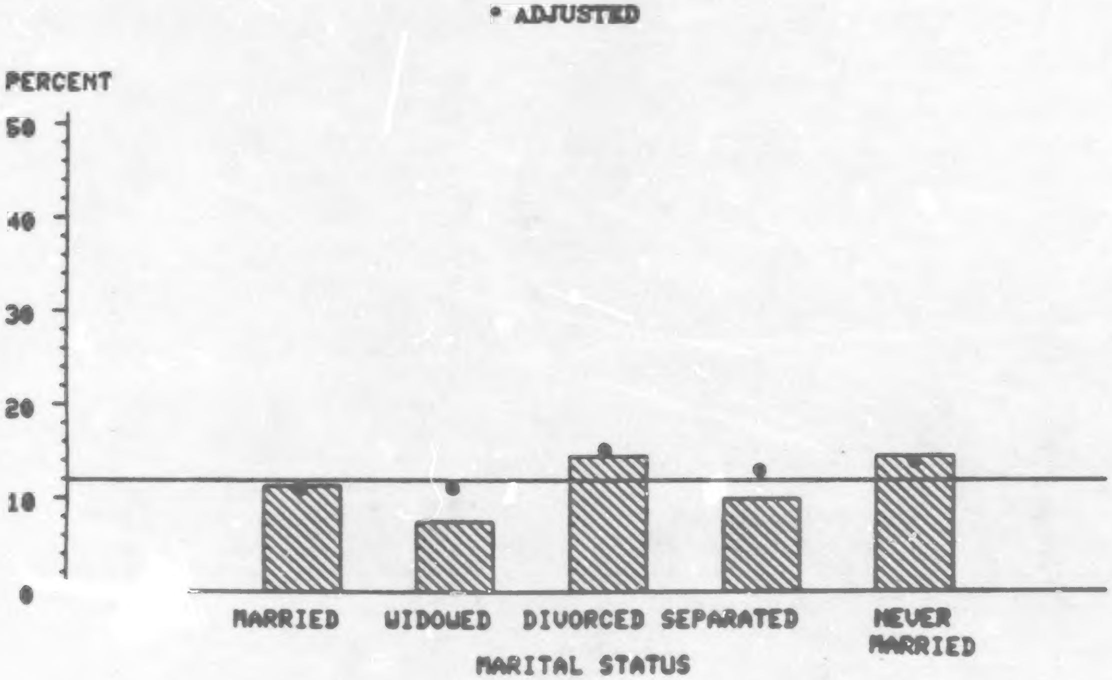
ATTEND PLAYS BY REGION



The highest rates for attending plays are in the Northeast and West. An approximately average rate is found in the Northcentral area, while the lowest rate is found in the South.

After adjustments for other background factors, the difference between the West and South diminishes, suggesting that the initial difference was at least partially due to other factors, possibly differential educational achievement.

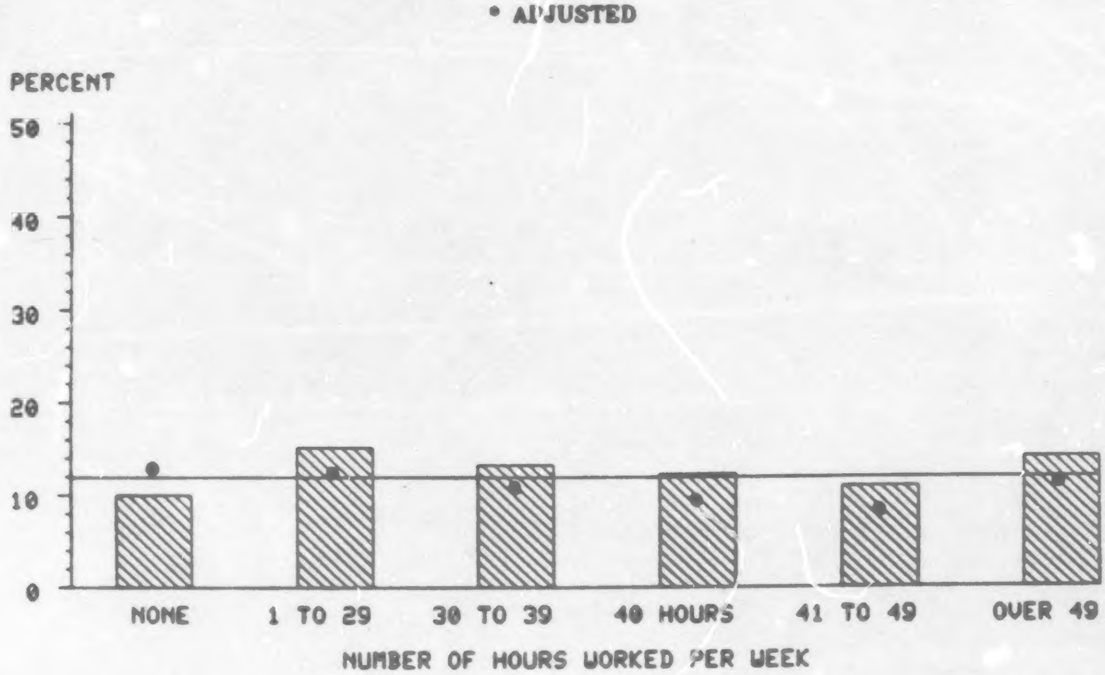
ATTEND PLAYS BY MARITAL STATUS



Divorced and never married persons are most likely to attend plays. On the other hand, separated spouses and widowed people attend at below average rates.

After adjusting for the impact of other factors, widows and separated spouses have much higher rates. Their originally lower rates were apparently suppressed by other factors like age and income.

ATTEND PLAYS BY HOURS WORKED

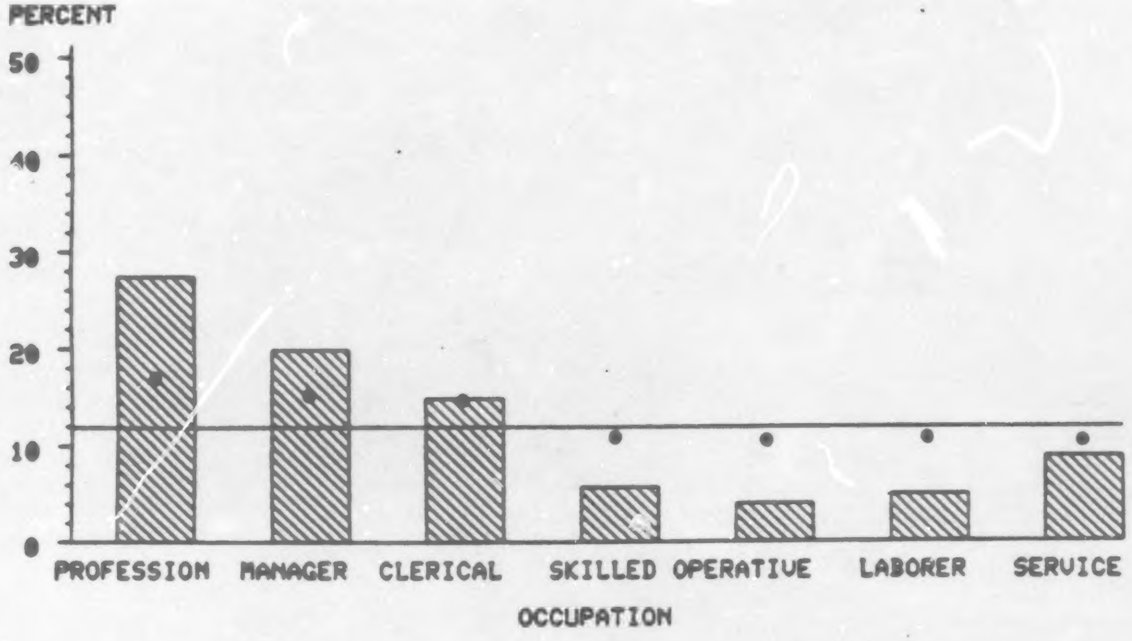


Those not working show the lowest attendance rates. Those working fewer hours and those working more than 50 hours had higher attendance rates for plays.

When other factors are held constant, the curvilinear relation persists, but those not working any hours become the category most likely to attend, while all other groups show decreased attendance.

79

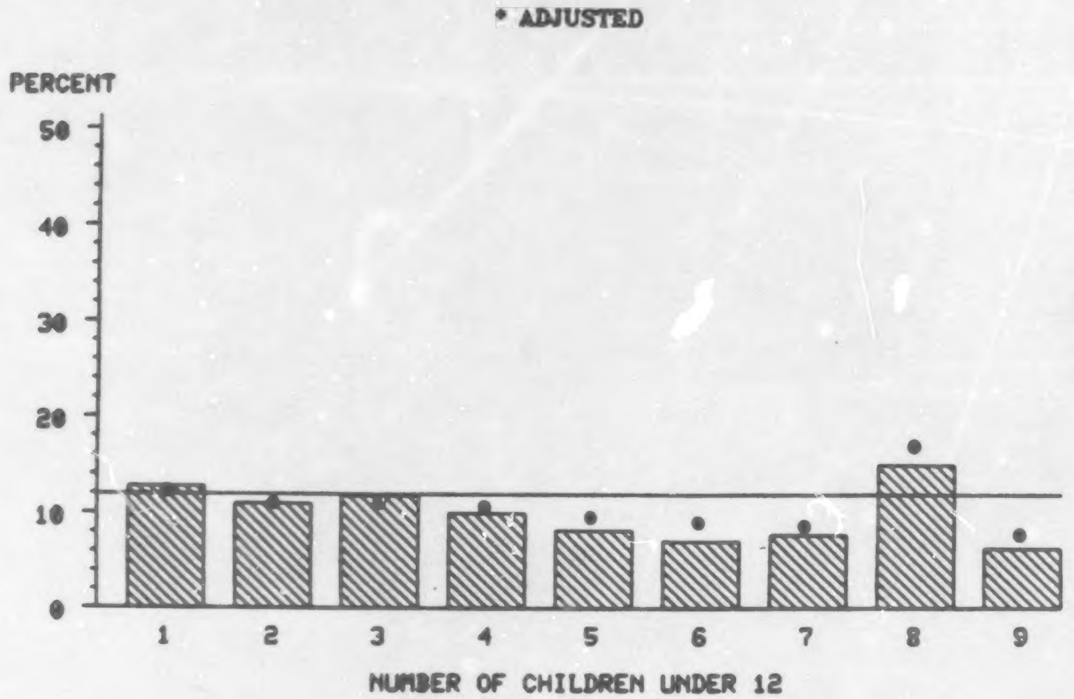
ATTEND PLAYS BY OCCUPATION



Professionals, managers, salespersons and clerks, and students are overrepresented in the audiences of plays and all other groups attend at below average rates.

After adjustment for other background variables, these differences diminish as all groups cluster around the national average. It is likely that differential income and education among occupational groups accounts for much of the original (unadjusted) association.

ATTEND PLAYS BY NUMBER OF CHILDREN



(1) No children
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(6) one child under 6; 2+ over 6
(7) 2+ children under 6; none over 6
(8) 2+ children under 6; one over 6
(9) 2+ children under 6; 2+ over 6

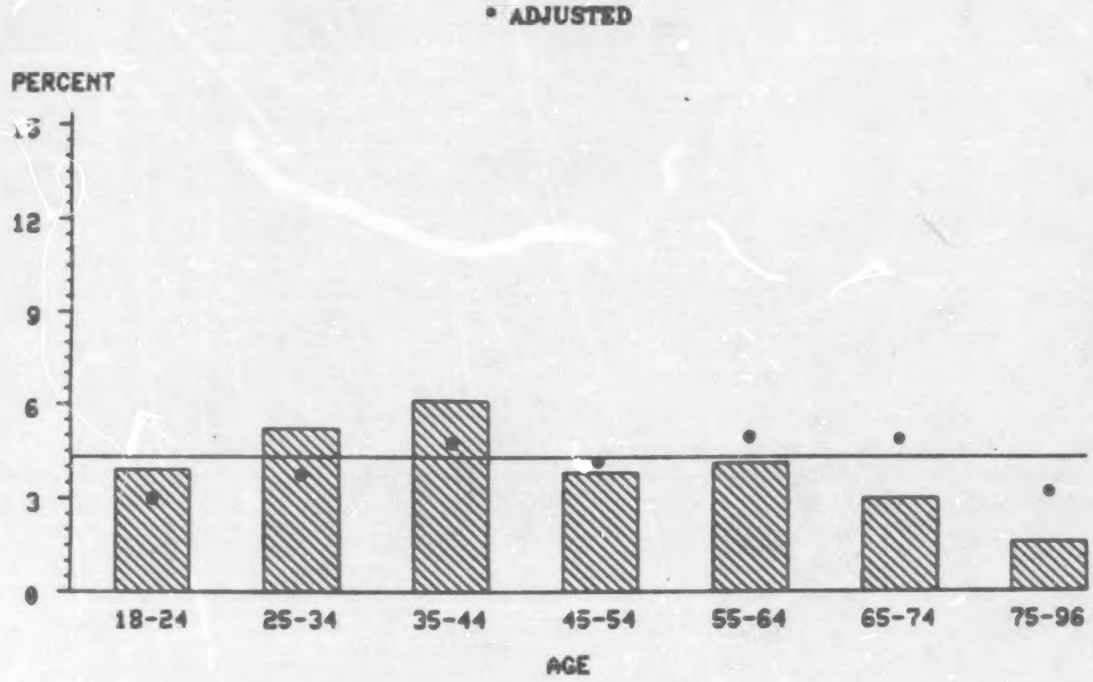
Compared to people without children in their households, people with children are generally less likely to attend plays. The one exception is the category of people with two children under 6 years of age and one older child; this group exceeds the attendance rate of people without children at home and shows the highest attendance rate of any category.

When other factors are controlled, the differences between individuals without children at home and those with children are considerably lessened (except for the category with two younger children and one older one). This means other factors like age were suppressing attendance of individuals with children at home in the original figures.

BALLET

The best predictors of attendance of ballet performances are education and occupation (variations of 12.8-8.8%). When other factors are held constant, education (11.0%) is still the most important predictor; sex, occupation, and number of children form a second tier of important predictors (4.7-4.1%).

ATTEND BALLETS BY AGE

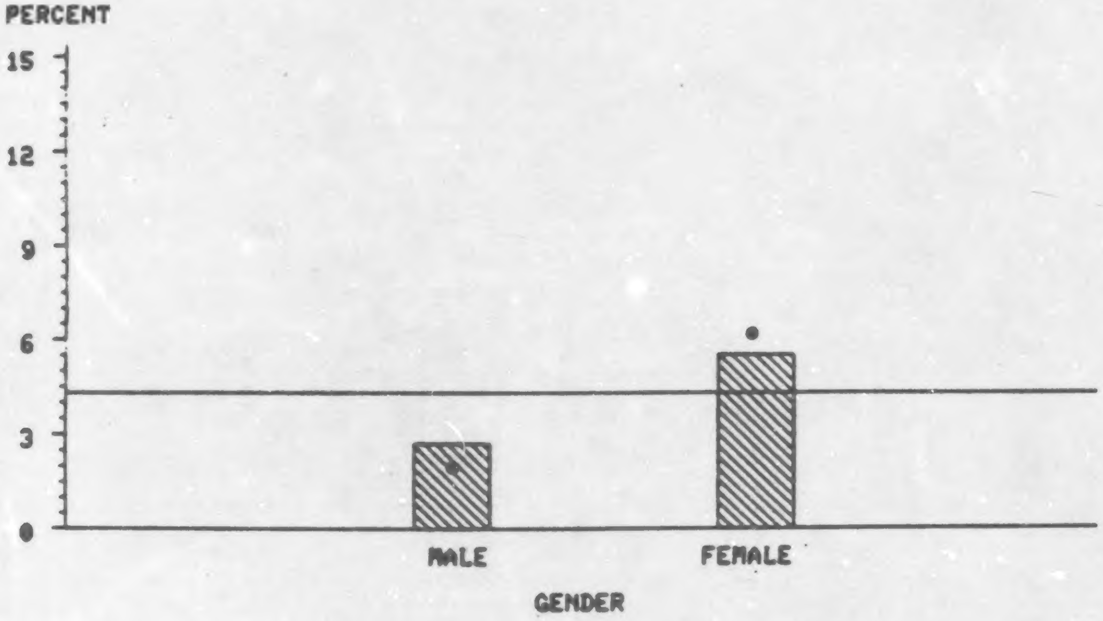


The attendance rate for ballet performances rises with age to almost one-and-a-half times the national average for those aged 35-44, then falls below the national average for older groups.

After adjustments for the impact of the other factors, these differences between age groups are lessened and, except for the highest age category, match or exceed the national average. The lower educational and income levels of the oldest categories might have suppressed their attendance in the original unadjusted rates.

ATTEND BALLETS BY GENDER

* ADJUSTED

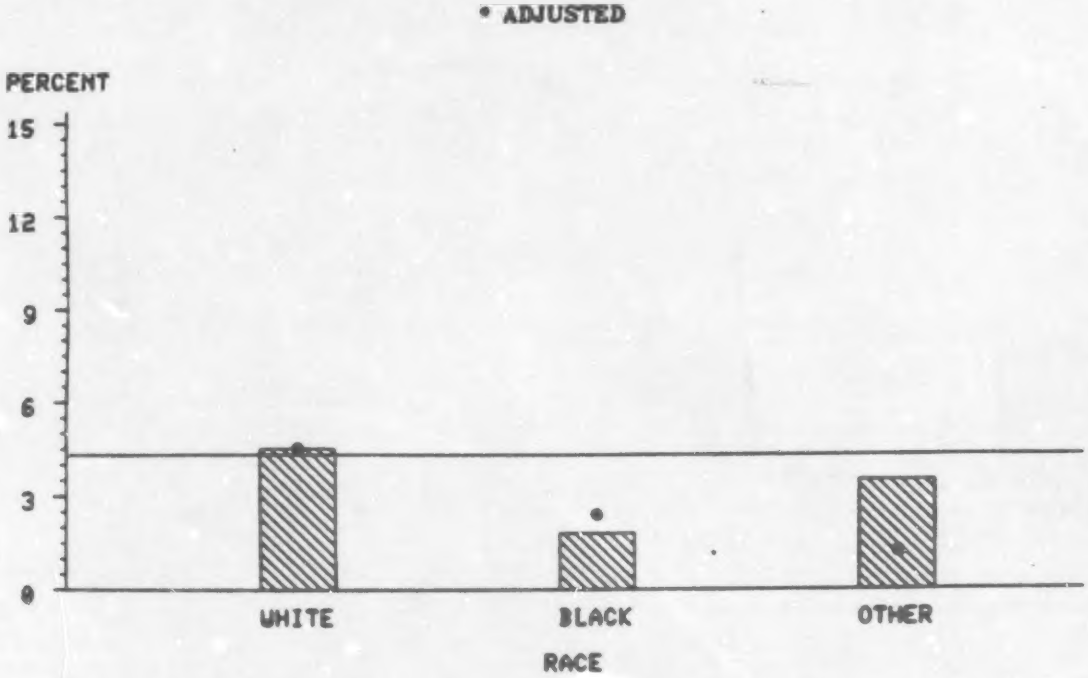


Women attend ballet at a much higher rate than men, with men attending at about one-half the national average and women attending at about one-and-one-quarter the national average.

When other factors are controlled, gender becomes an even stronger predictor of attendance. Indeed, it moves from the eighth to the second best predictor of ballet attendance. The lower education and income levels of women may have suppressed attendance, and statistical controls demonstrate the strength of the association between sex and attendance at the ballet.

84

ATTEND BALLETS BY RACE

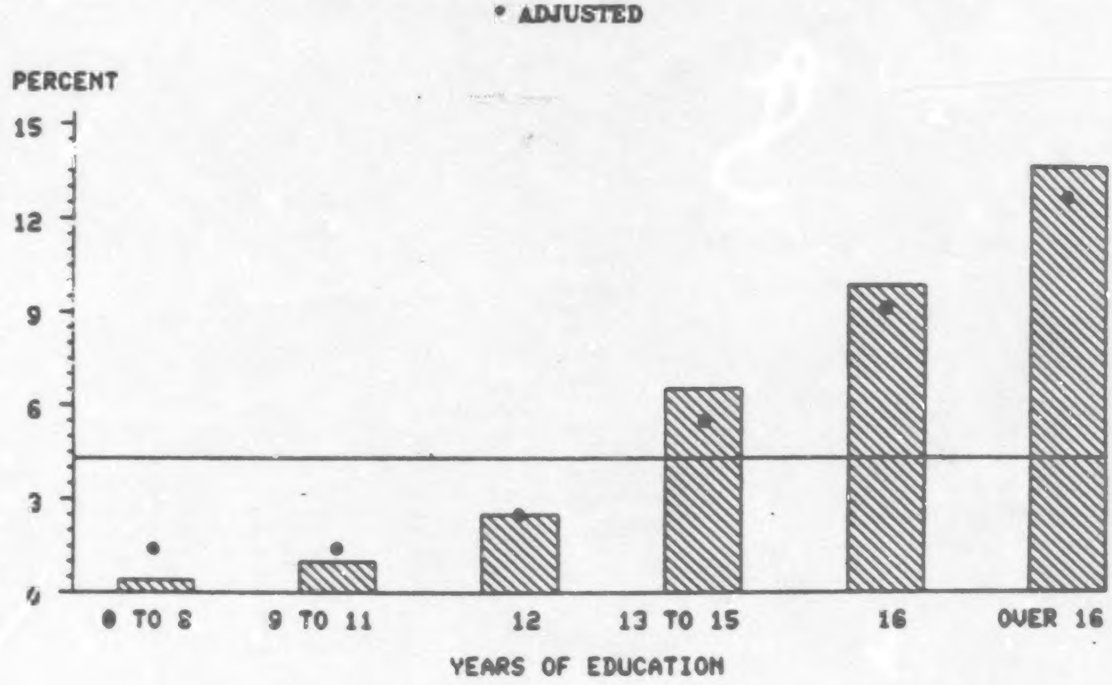


Whites and "other" races are respectively somewhat above and below average in attending ballet, whereas blacks attend at less than half the national average.

The most dramatic shift when other factors are held equal is that the attendance rates of "other" races is cut by roughly two-thirds, falling below blacks' rate which was slightly raised by the statistical adjustment. Other factors evidently play a large part in explaining the attendance rate for "other" races.

85

ATTEND BALLETS BY EDUCATION

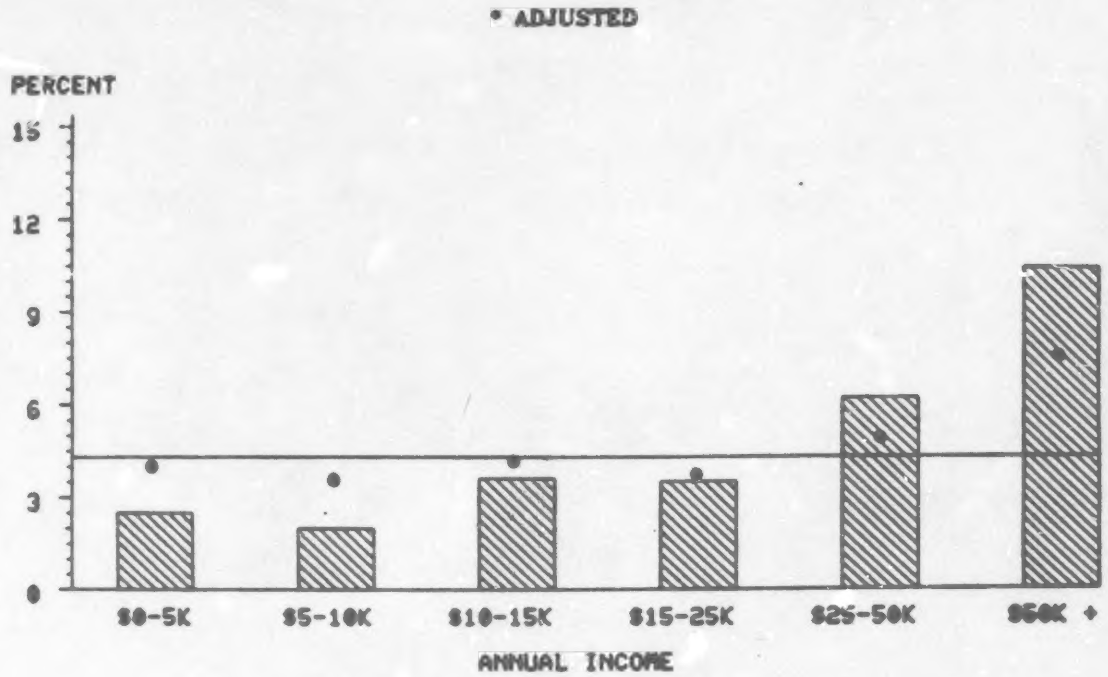


Attendance of ballet performances occurs at progressively higher rates with increasing education. The extreme categories show great differences; those with only a grade school education attend at a tenth of the national average rate, while those who attended graduate school participate at a rate of three times the national average.

The trend is essentially the same after adjustment for the influence of the other factors, although the attendance rate for people with some college is considerably increased. Education again proves itself a powerful explanatory variable.

86

ATTEND BALLETS BY INCOME



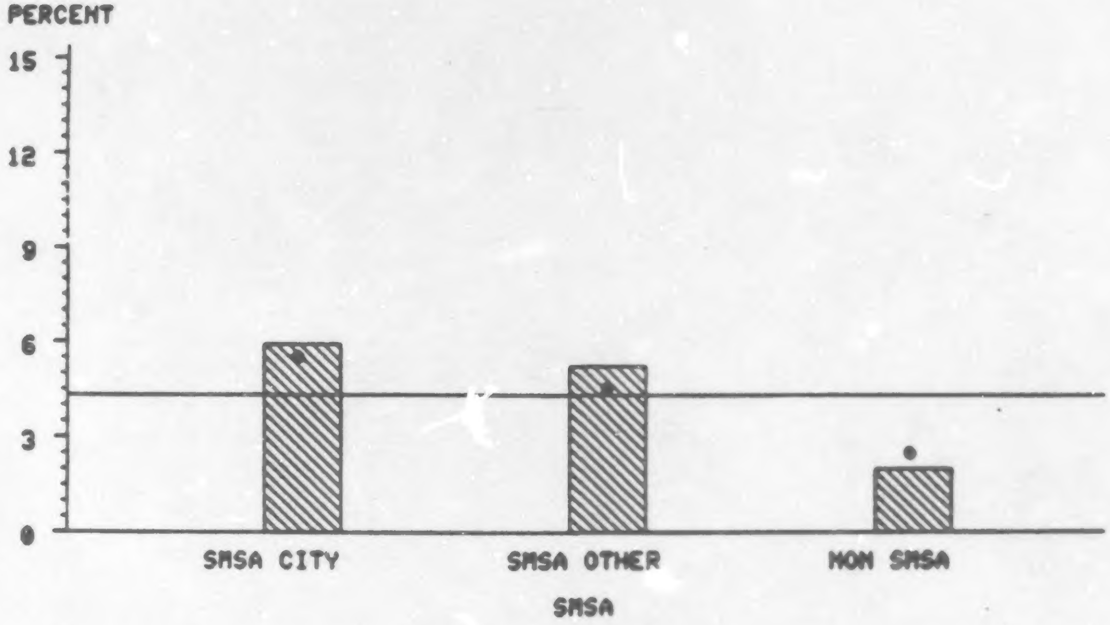
The attendance rates for ballet performances generally rise among higher income brackets. Those earning $10,000-$14,999 attend at half of the national average rate, while those earning $50,000 and over attend at about one-and-a-half times the average rate.

Except for the highest income bracket, after the effects of the other factors are statistically removed, attendance rates are similar for all income brackets. Other factors somewhat suppress the attendance rate of those with lower incomes and, conversely, inflate the attendance rate of those with higher incomes. Education and its close association with income probably accounted for much of the apparent relationship between income and attendance. In general, income is only a good explanation of attendance when contrasting the highest bracket with all others.

91

ATTEND BALLETS BY SMSA

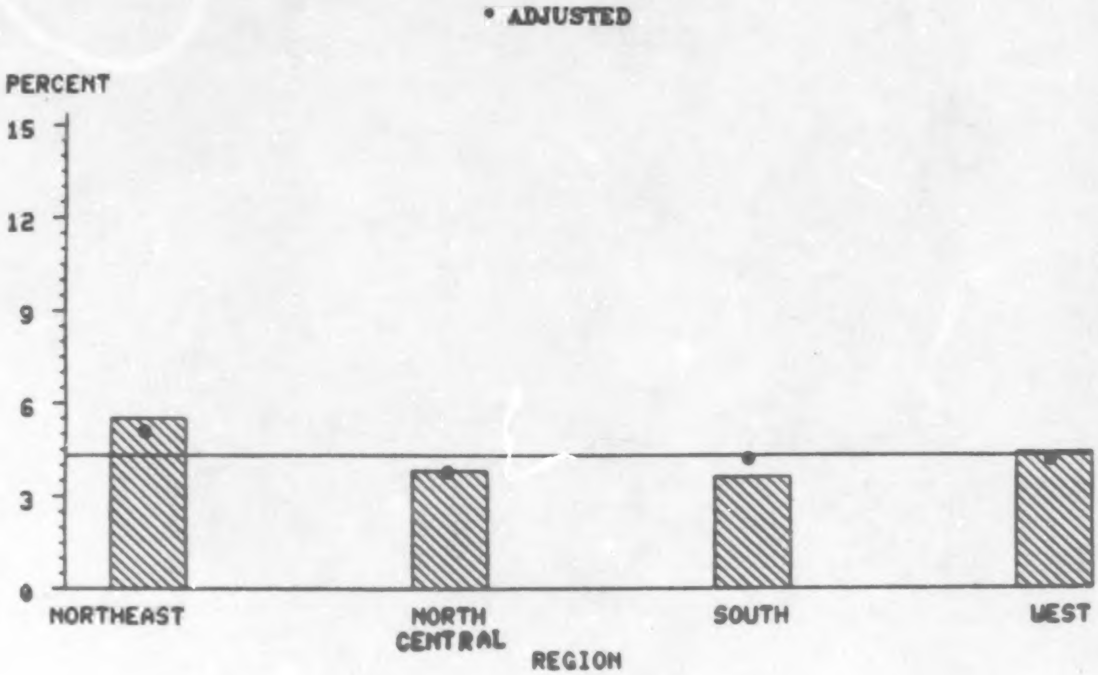
* ADJUSTED



Residents in SMSA's participate at about 1-2% above the national average. Those residing outside of SMSA's attend at about 2% below the national average.

When other factors are taken into account, these differences lessen. Those residing outside of central cities within SMSA's and those residing outside of SMSA's move closer to the national average. Nevertheless, those living outside of SMSA's attend ballet at clearly lower rates, which suggests that location has an effect on attendance that is independent of other background factors. As with opera, the availability of ballet performances is probably much greater in urban than in rural areas.

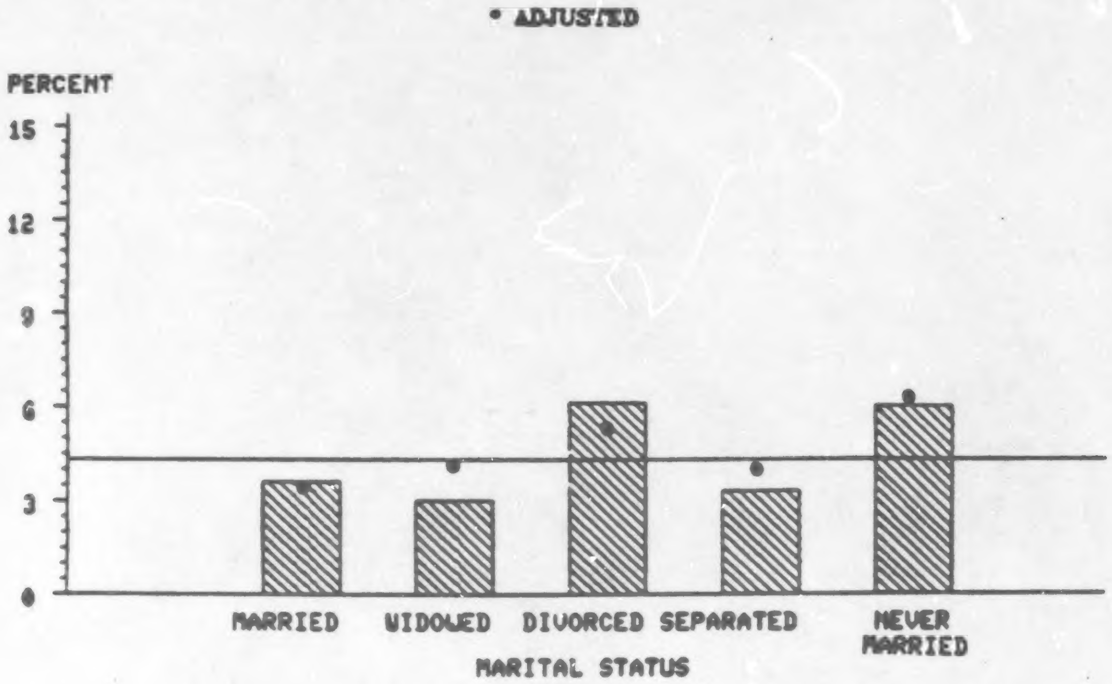
ATTEND BALLETS BY REGION



The Northeast and the West have higher attendance rates for ballet than the Northcentral area and South, which have almost equal rates slightly below the national average.

The influence of other factors accounts for much of the difference in rates between the South and the West, whose adjusted rates match the national average. In these regions, education or income might really account for different rates of participation, not region per se. On the other hand, in the Northeast and Northcentral regions, region itself still helps explain differences in attendance rates.

ATTEND BALLETS BY MARITAL STATUS

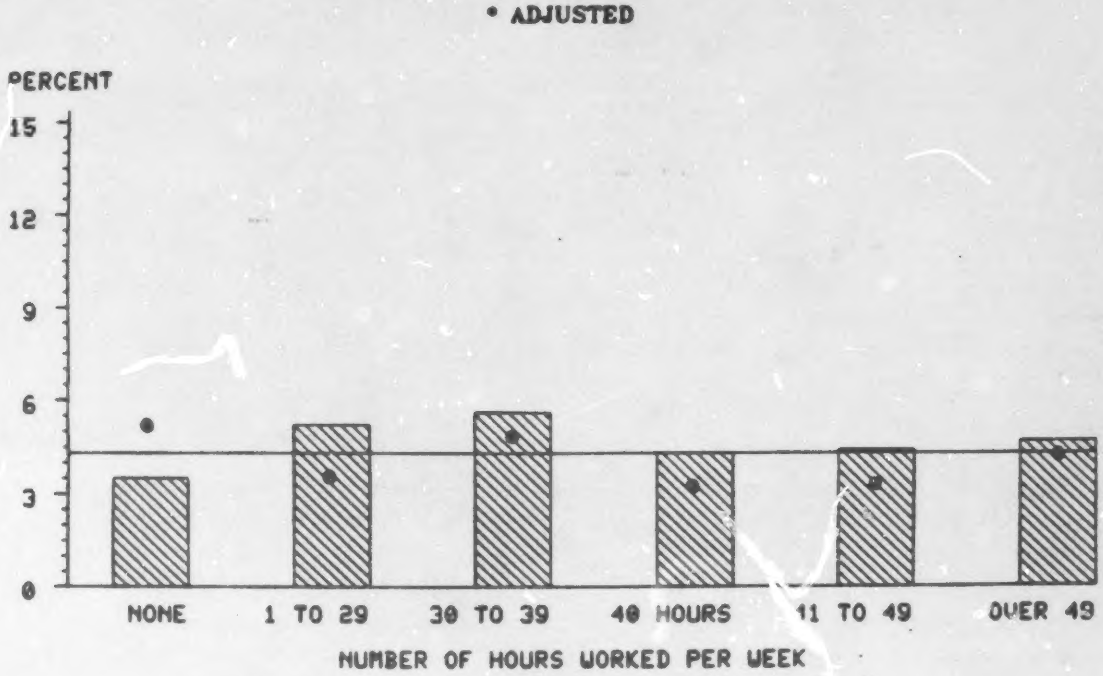


Those divorced and those never married are markedly more likely to attend ballet performances than those having other marital statuses, where attendance is slightly below the national average.

When other factors are held constant, the widowed and separated attend at rates approaching the national average, indicating that other factors like income and age may have accounted for their initial low rates of attendance.

90

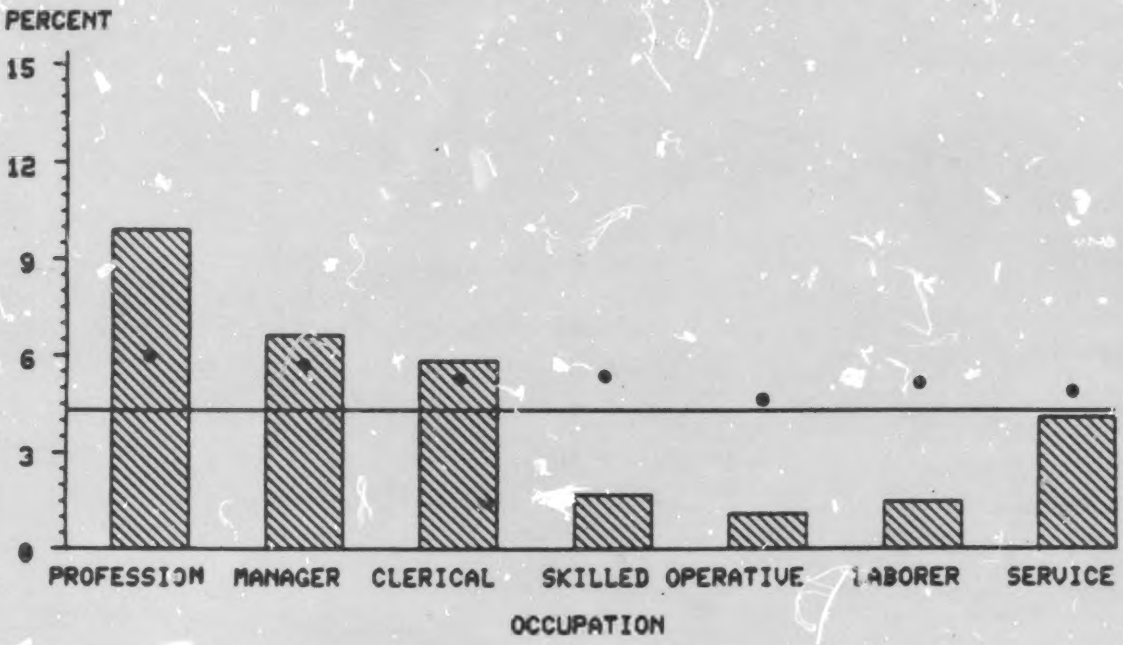
ATTEND BALLETS BY HOURS WORKED



Those working no hours are less likely than the average person to attend ballet performances; those working less than 40 hours are more likely than average to attend, while those working 40 hours or more attend at about average rates.

If other factors are equalized, however, those working no hours would attend at the highest rate. Possibly, this group's lower income was acting to suppress their attendance before statistical adjustments were made.

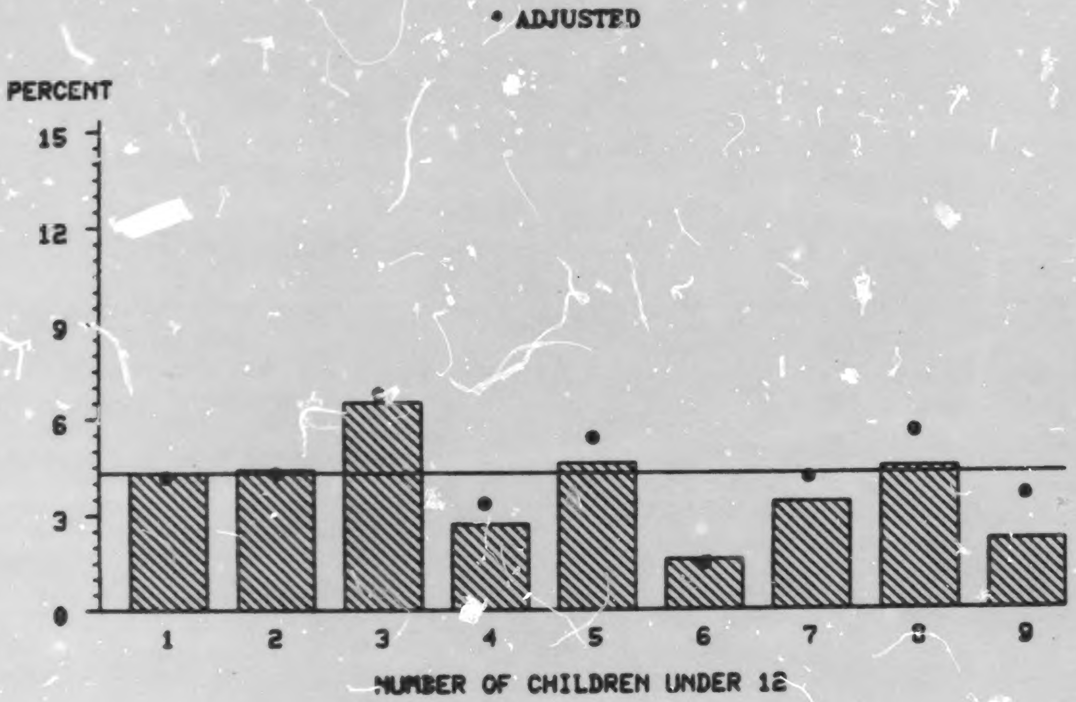
ATTEND BALLETS BY OCCUPATION



Among professionals, managers, salespersons and clerks, and students, attendance at the ballet occurs at the highest rates. On the other hand, blue-collar occupational groups and those not in paid occupations attend at below average rates.

However, when other background factors are controlled for, professionals, managers, and students show lesser attendance rates, while blue-collar employees, service workers, and retired people rise to meet or exceed the national average. Only the unemployed and homemakers remain below average after statistical adjustments are made. Income and education are likely to account for this pattern of findings.

ATTEND BALLETS BY NUMBER OF CHILDREN



(1) No children
(2) One child, over age 6
(3) 2+ children, over age 6
(4) one child under 6
(5) one child under 6, one over 6
(6) one child under 6; 2+ over 6
(7) 2+ children under 6; none over 6
(8) 2+ children under 6; one over 6
(9) 2+ children under 6; 2+ over 6

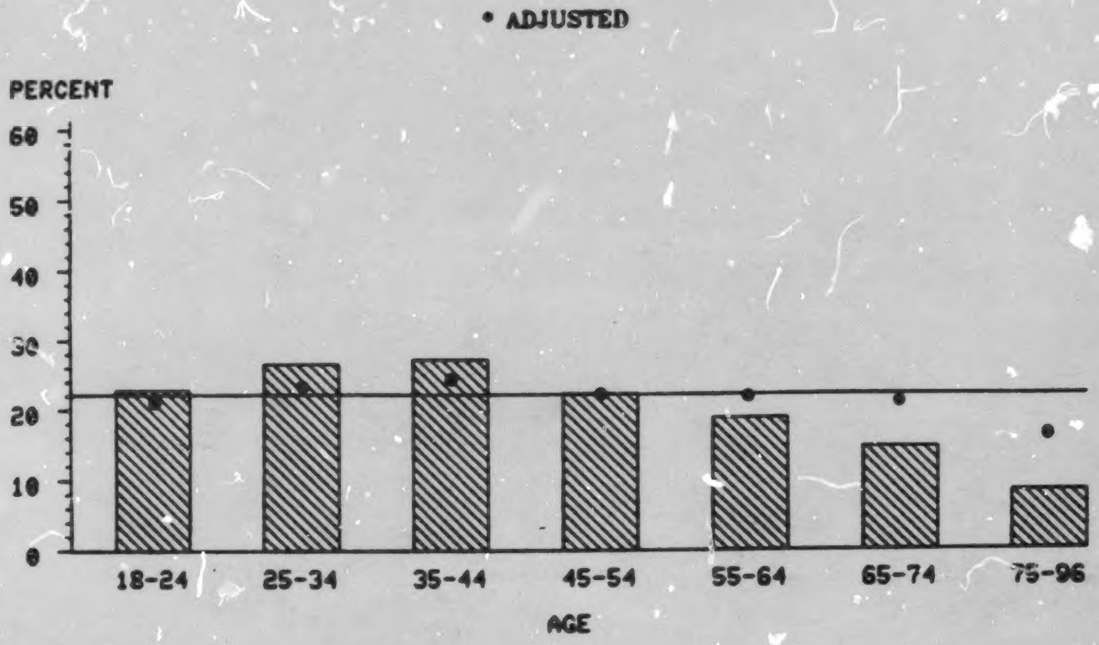
Those with no children have an average attendance rate. Although those with children show great variation above and below the average rate, those persons with very young children tend to have the lowest rates.

If other factors are held constant, the same general pattern appears although the attendance rates for those with children tend to increase relative to the average. Presence of children generally inhibits attendance at the ballet, although this relationship is complex and other background factors like sex and occupation also influence attendance.

ART GALLERIES AND MUSEUMS

The best predictors of attendance of art museums are education, occupation, and income (variations of 53.2-35.4%). After adjustment for other factors, the best predictors are education and occupation (variations of 43.9-14.6%).

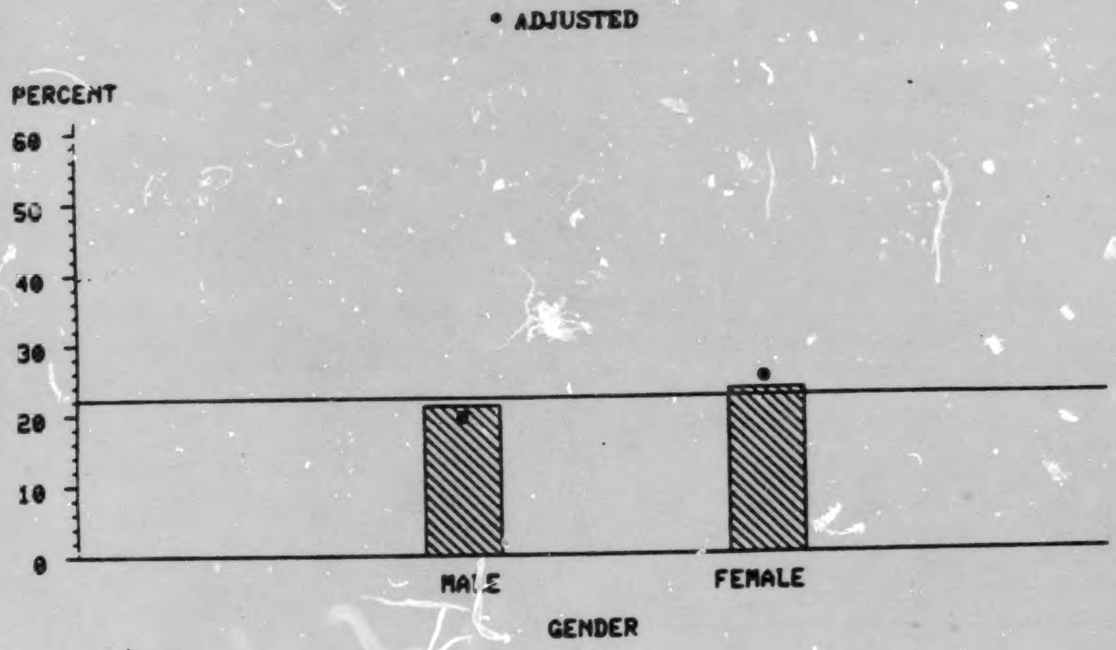
VISIT ART MUSEUMS BY AGE



People between the ages of 25 and 44 are most likely to visit art museums or galleries, while persons over the age of 55 years are least likely.

When the influence of other factors is removed, the curvilinear trend persists, but in an attenuated form. Much of the attendance rate differences between age groups is then attributable to other background factors, such as differential education and income.

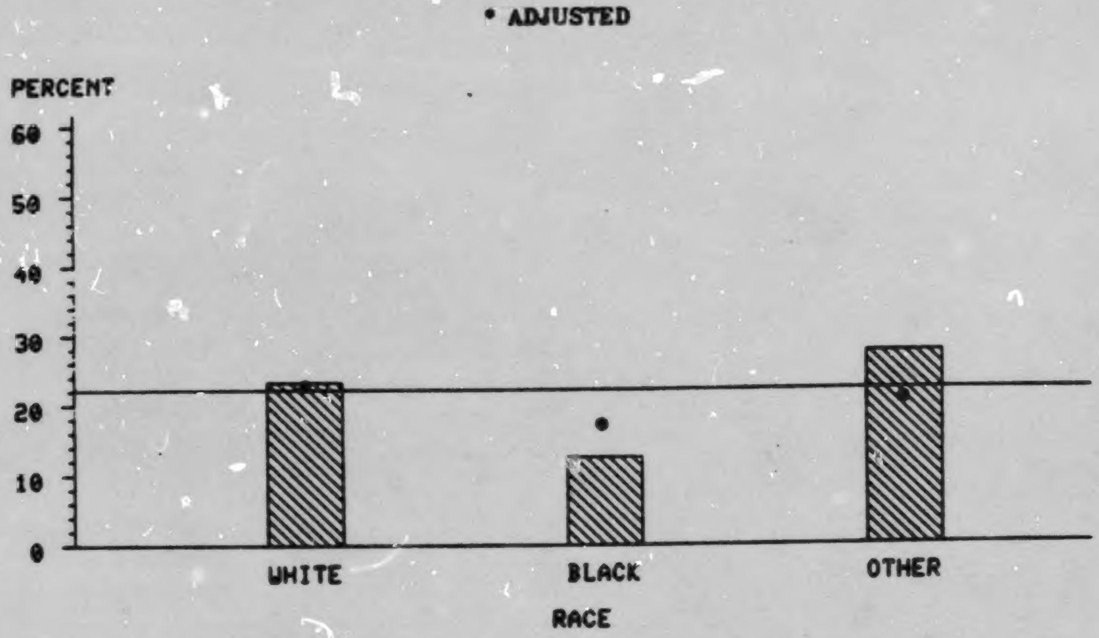
VISIT ART MUSEUMS BY GENDER



Although females attend at a higher rate than males, the difference is not great.

When other background factors are held constant, the difference increases to a 5% greater attendance by females. This means that the reasons behind women's greater likelihood of visiting art museums are independent of (indeed, suppressed by) other factors associated with gender, such as income and education.

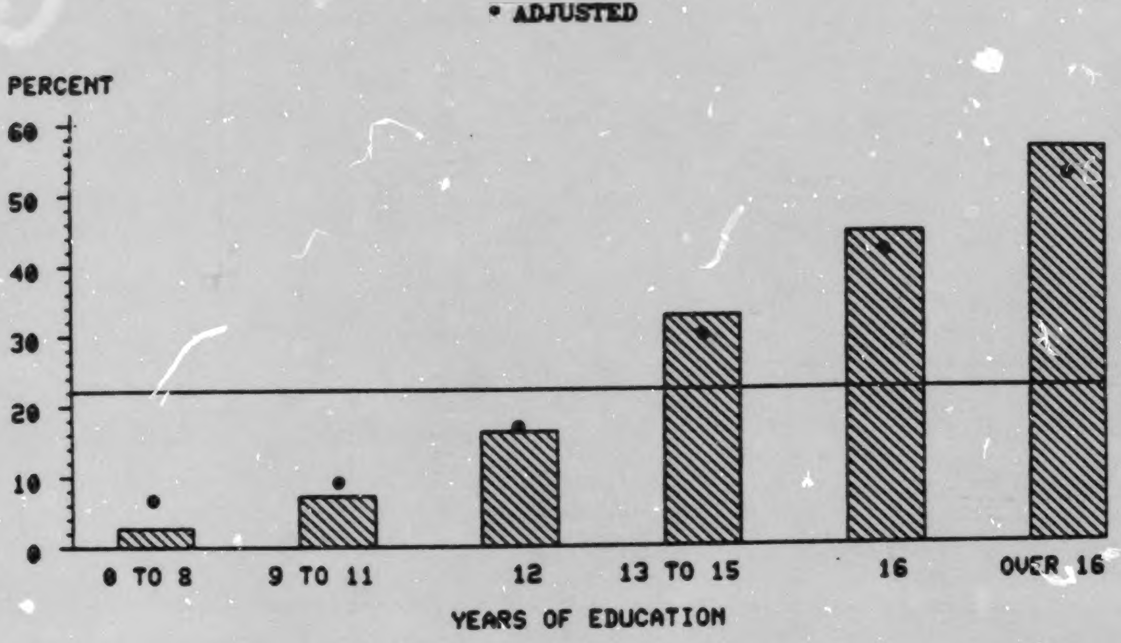
VISIT ART MUSEUMS BY RACE



Whites attend museums at about the national average; blacks at approximately half of the national average; "other" races attend at the highest rate, about 5% above the national average.

When the effects of the other factors are removed, the rate for "other" races falls slightly below the national average, a drop which suggests that their high rate is explained by other factors.

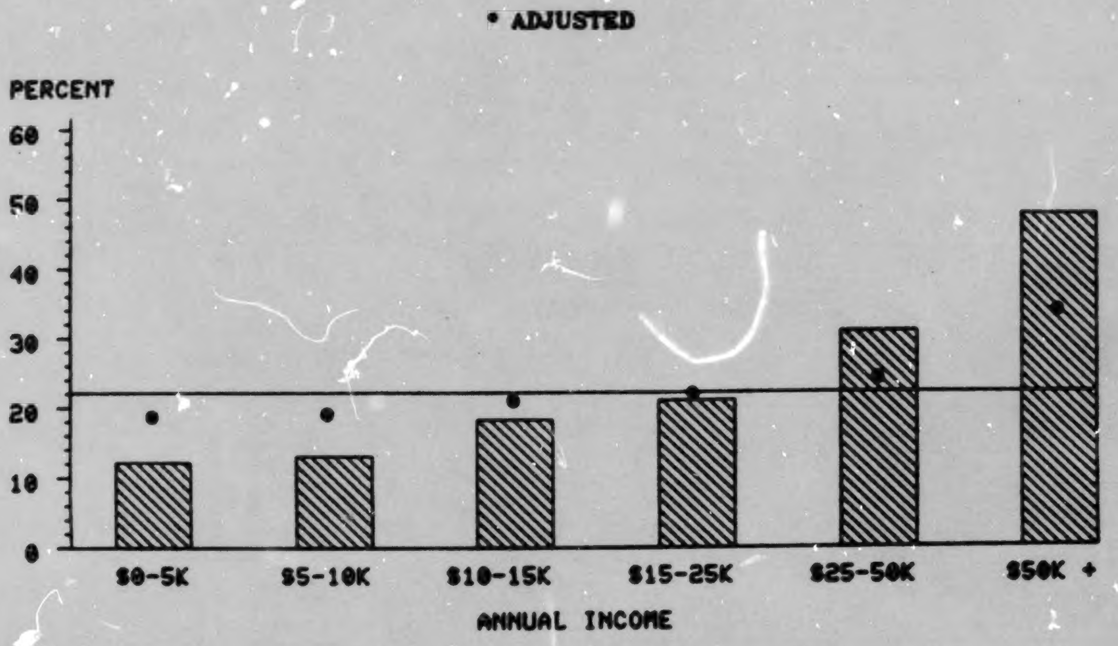
VISIT ART MUSEUMS BY EDUCATION



With increasing education, the attendance rates at museums rise sharply. The rates rise from a low (about one-seventh of the average) for those with only a grade school education to a high with those who attended graduate school (approximately two-and-one-half times the national average).

The overall pattern is essentially the same after adjusting for the effects of other factors. Thus, education is both a strong predictor and an explanatory factor in art museum attendance an important.

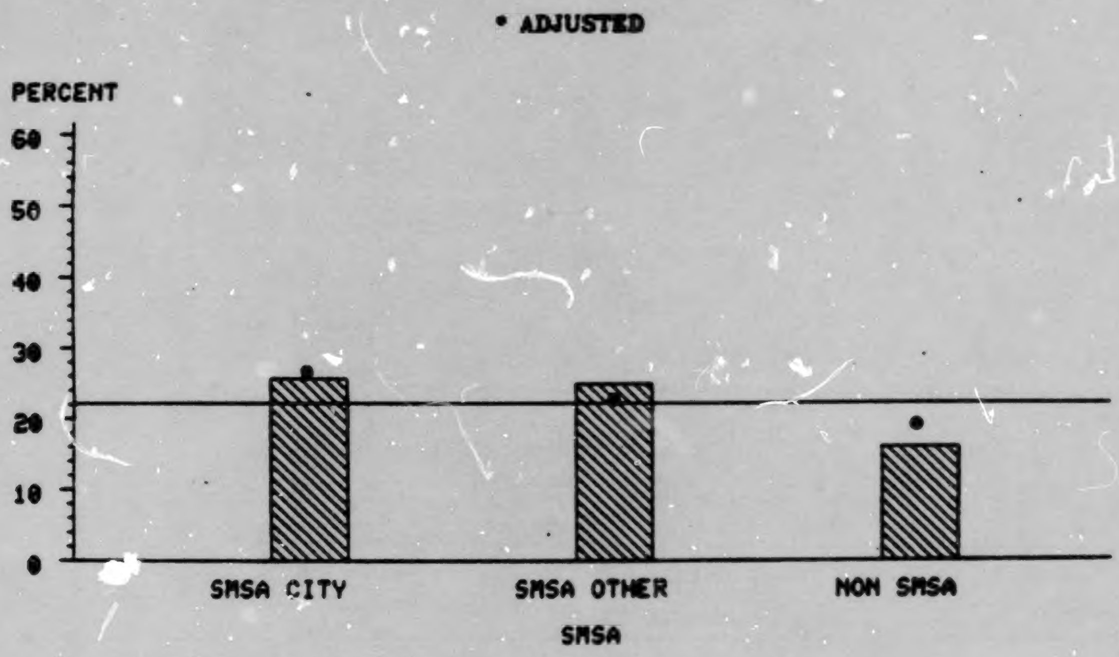
VISIT ART MUSEUMS BY INCOME



Attendance rates climb with income. The relationship is strong, with those earning under $10,000 attending at a rate of roughly one-half of the national average and those earning $50,000 at one-and-a-half times the average rate. There is an especially large increase with the $50,000+ category.

However, much of this variation is attributable to other associated factors, as the adjustment for other background factors reveals. Nevertheless, the positive relationship remains after controlling for these factors, although it is considerably weaker.

VISIT ART MUSEUMS BY SMSA

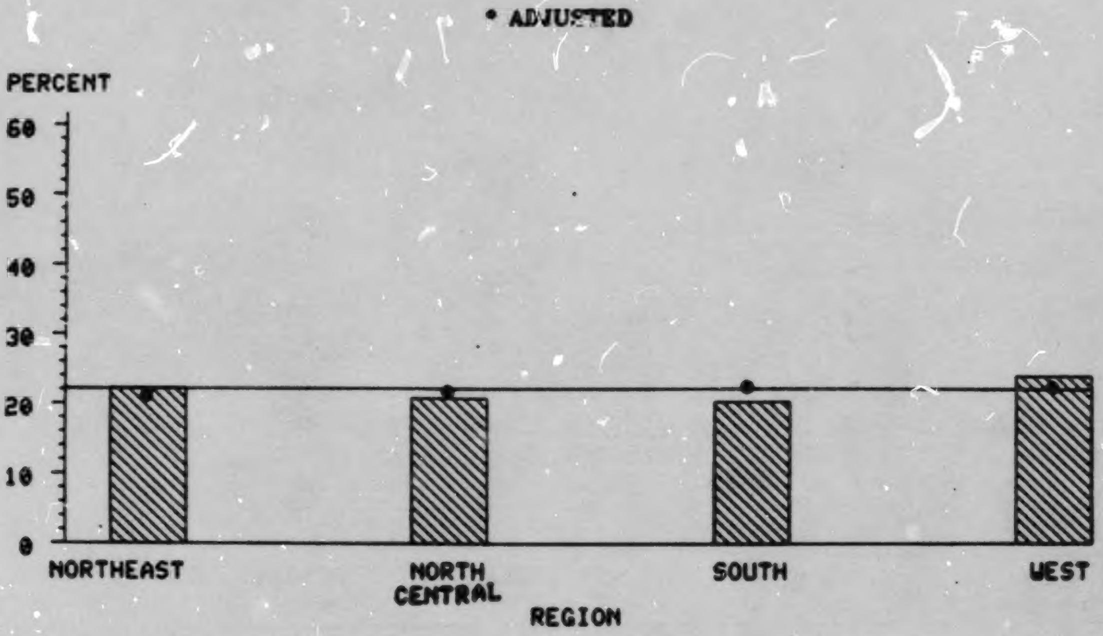


Within SMSA's, the attendance rates for those living within versus outside of the central city differ little. Those residing outside of SMSA's, however, attend at a considerably lower rate, probably due to difficulty of access to art museums and galleries.

When the other factors are held constant, the attendance rate of those living in SMSA's but outside of central cities falls slightly below the national average, while the rate of those living outside of SMSA's moves noticeably toward the average.

This means that some of the apparent differences between urban and nonurban attendance are attributable to other factors like income and education which tend to be higher in suburban areas.

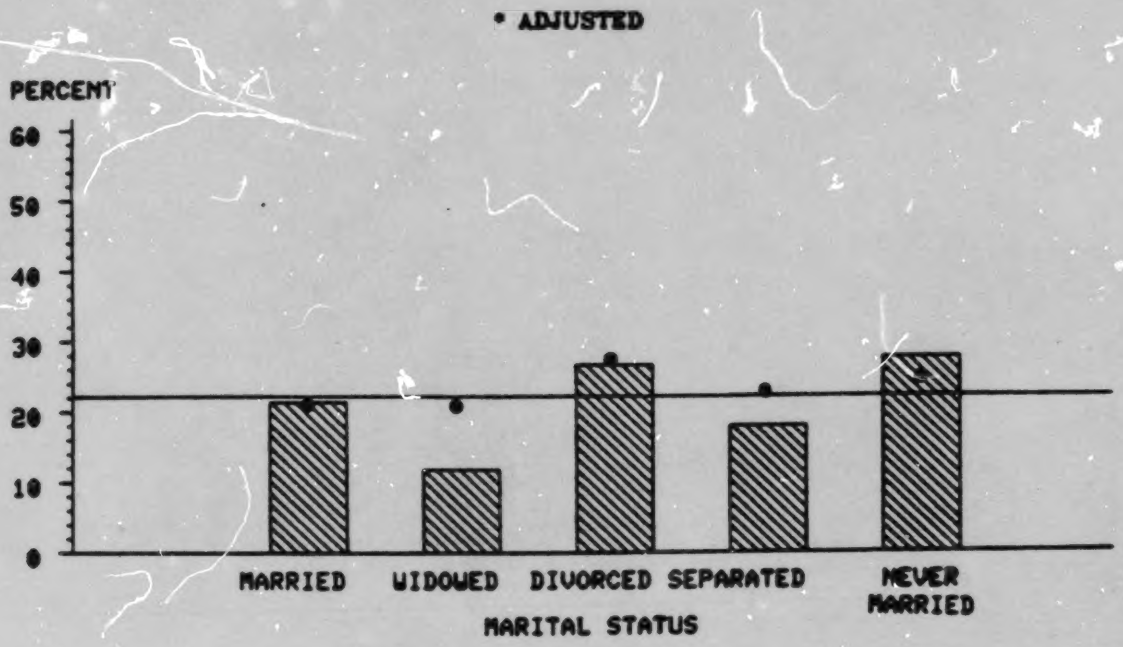
VISIT ART MUSEUMS BY REGION



The West has a markedly high visitation rate for art displays. The Northeast and the Northcentral have rates that roughly approximate the average rate, while the South has a lower than average rate.

However, when other factors are held constant, the attendance rates for the three regions are quite similar, while the Western rate remains relatively high. The high rate of attendance in the West isn't attributable to other other factors and living in the West seems to have some explanatory power of its own.

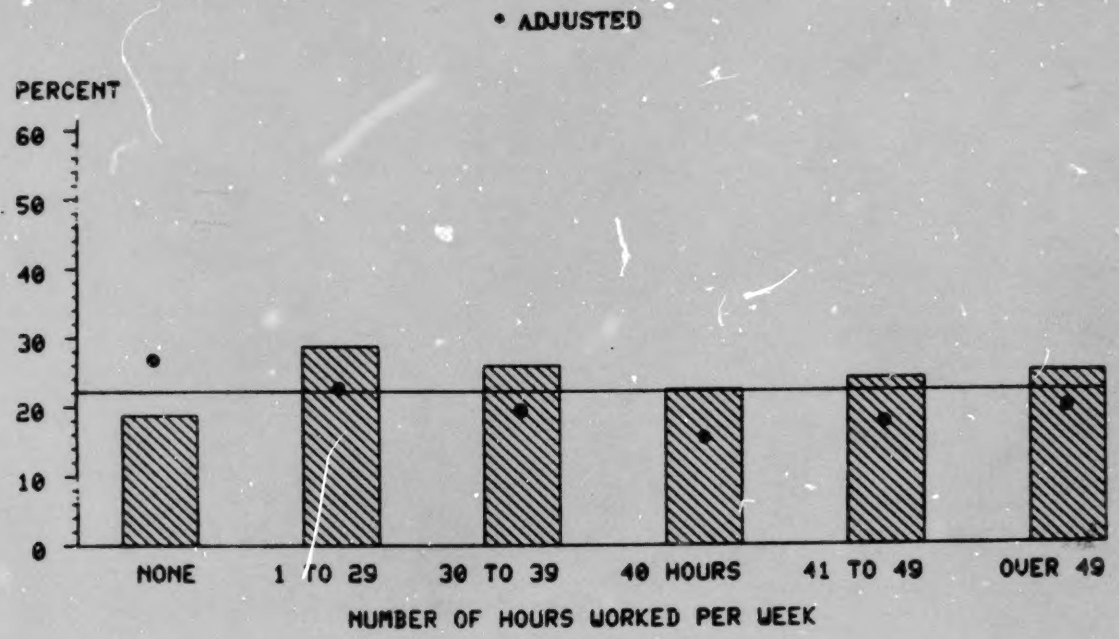
VISIT ART MUSEUMS BY MARITAL STATUS



Those divorced and those never married have the highest attendance rates for art displays. At the other extreme, those widowed or separated are considerably less likely than average to attend.

The impact of other factors accounts for much of the lower rates for the widowed and separated, as shown by considerably higher rates after adjustment. Lower income, for example, might at least partially account for the originally low rates for these two groups.

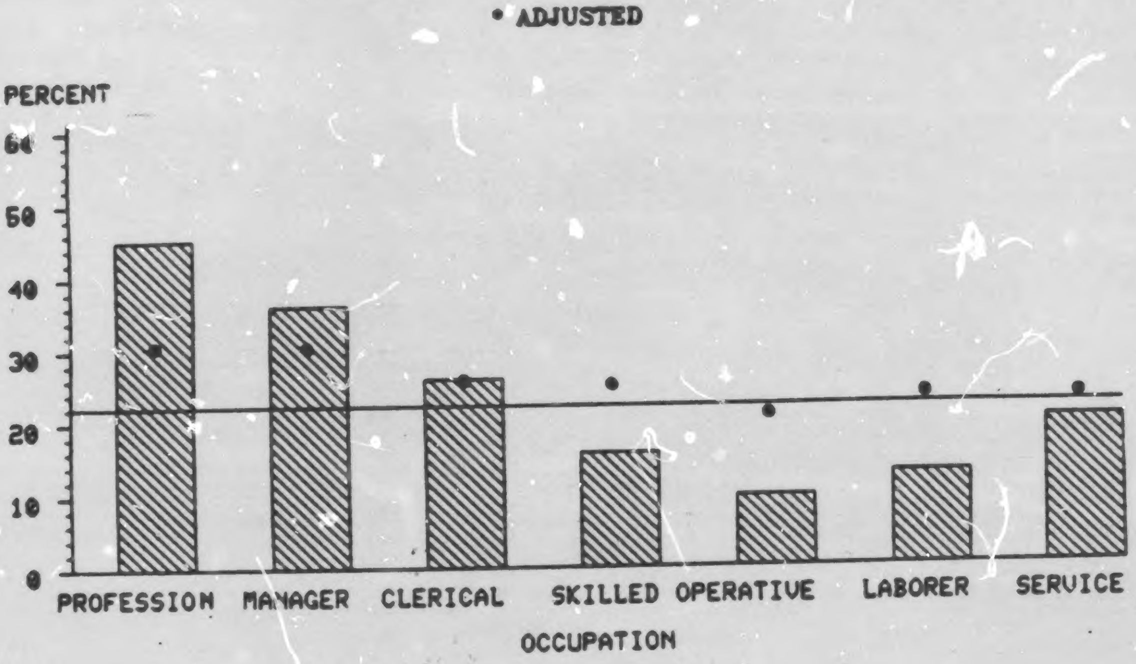
VISIT ART MUSEUMS BY HOURS WORKED



Part-time workers have the highest rates of attendance; those working 40 hours meet the national average, but have the lowest rate among all working groups. Only those not working attend at less than the national average.

However, after controlling for other factors, this pattern changes. Attendance for non-workers rises sharply, indicating factors like income might suppress attendance in the unadjusted figures, while rates fall for all other groups.

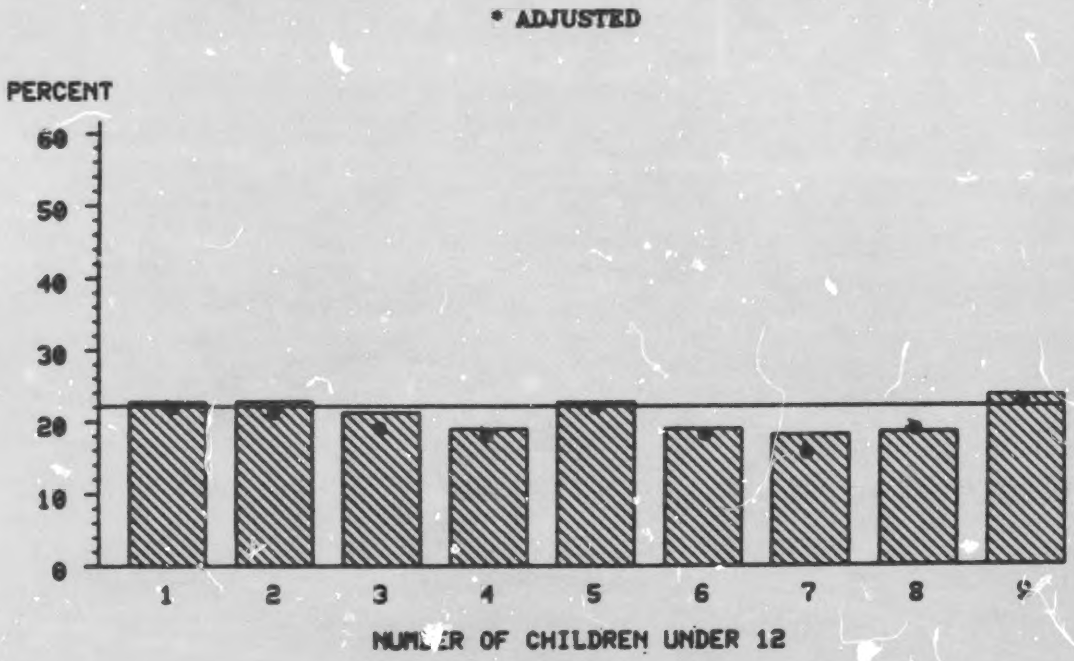
VISIT ART MUSEUMS BY OCCUPATION



Professionals, managers, and students visit art museums and galleries at markedly higher rates than other occupational categories. However, blue-collar workers, housewives and students fall considerably below the national average.

Adjustments for the effects of other background factors noticeably decreases these occupational differences, although homemakers and retired people still fall below the national average. The original occupational differences were probably more directly related to income and education levels than to occupation itself.

VISIT ART MUSEUMS BY NUMBER OF CHILDREN



(1) No children
(2) One child, over age 6
(3) 2+ children, over age 6
(4) one child under 6
(5) one child under 6, one over 6
(6) one child under 6; 2+ over 6
(7) 2+ children under 6; none over 6
(8) 2+ children under 6; one over 6
(9) 2+ children under 6; 2+ over 6

People without children in the household go to art displays at an average rate, while those with children under six tend to show a slightly lower rate of attendance. Even in homes with very young children, however, the rate of attendance does not drop dramatically.

Controlling for other factors leaves this pattern largely unchanged, with only small differences between categories and the presence of children generally having only a slightly inhibiting effect on attendance.

READING OF NOVELS, SHORT STORIES, POETRY, OR PLAYS

Education, occupation, and income are the most important predictors of reading literature (variations of 64.1-29.5%). When other factors are held constant, education remains the single best predictor (variation of 58.2%); occupation, gender, and race become a second tier of important predictors (16.3-14.7%).

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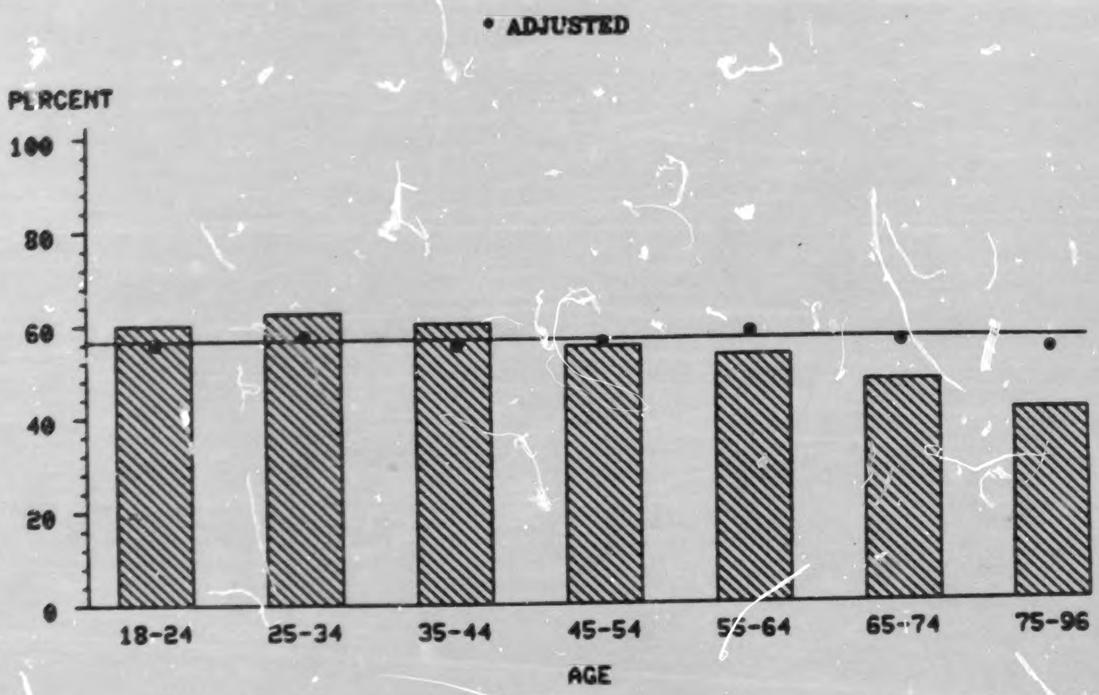
READING LITERATURE BY AGE



The reading of novels, short stories, poetry, or plays generally decreases with age, but is most prevalent among those aged 25-34. After age 45, reading levels progressively drop, until nearly 20% fewer people in the oldest group read literature in the past year.

Other associated factors tend to suppress the actual attendance rates of older individuals, and inflate the actual rates of younger persons. When these factors are controlled, age differences in reading literature appear slight, with most groups at or near the national average. Most likely, higher educational levels in younger groups accounted for the initial differences. Age itself offers a less direct explanation for reading habits.

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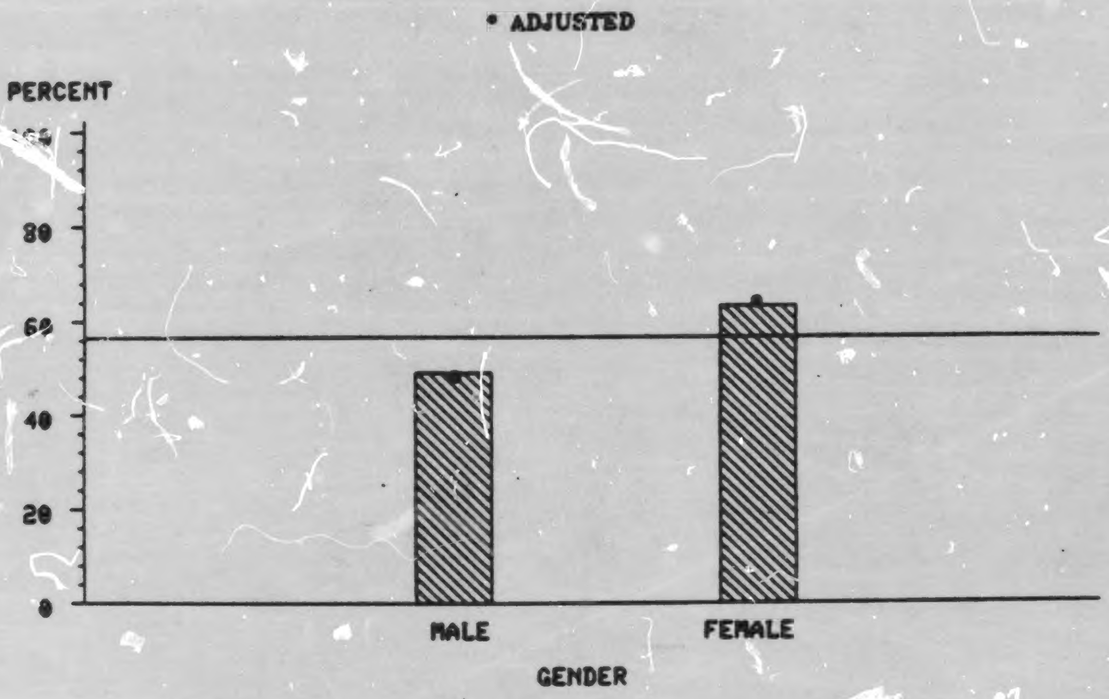
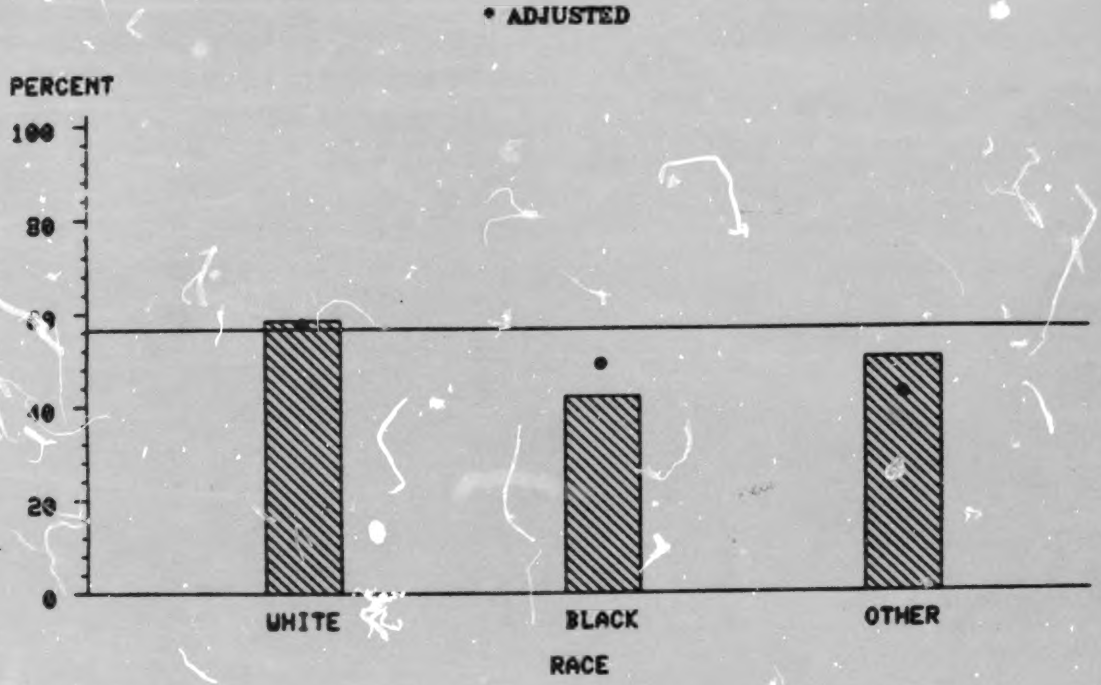
READING LITERATURE BY GENDER



Females are more likely than males to read literature.

Adjustment for the impact of other background factors does not substantially change the figures. The effect of gender on reading is relatively independent of the effects of the other background factors like education, income and occupation. Gender itself helps explain reading habits.

READING LITERATURE BY RACE

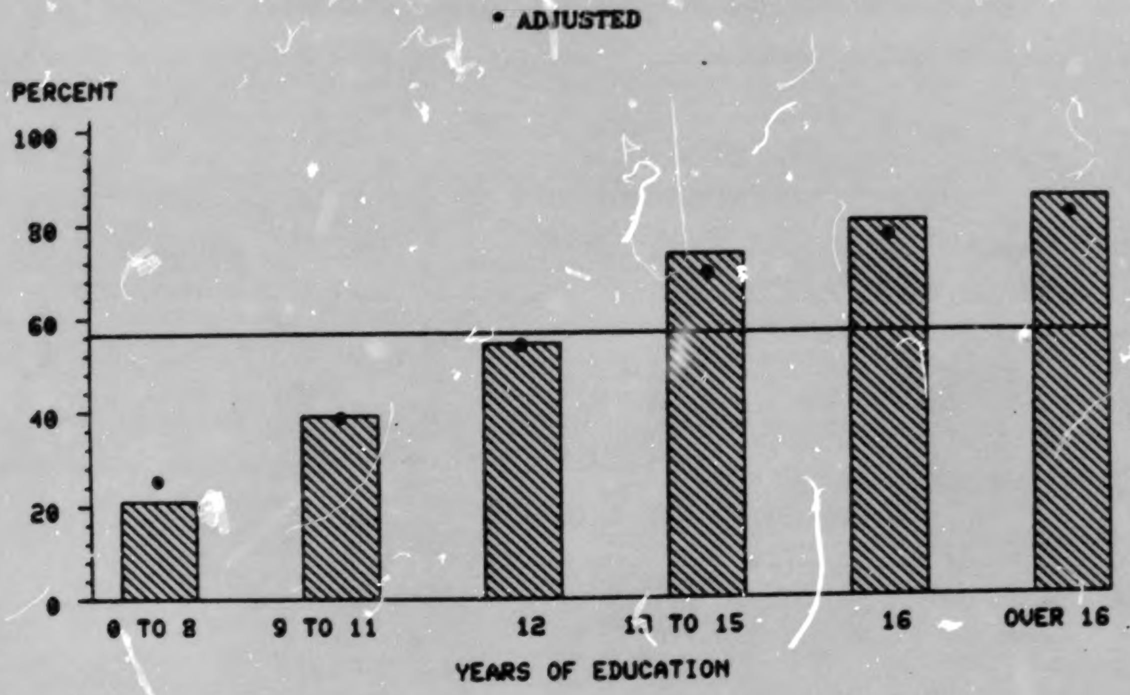


The percentage of whites reading literature is slightly above average; the percentage of blacks is 14% below the national average; the percentage of "other" races is intermediate, 4% below the national average.

When associated background factors are held constant, the rate for blacks rises, while "other" races show a decrease. Education is probably the crucial factor in deflating the unadjusted rate for blacks.

Adjusting for the impact of other background factors does not substantially change the white reading rate, but the black rate rises and "other" races show a decrease. Education might have been suppressing the unadjusted rate for blacks.

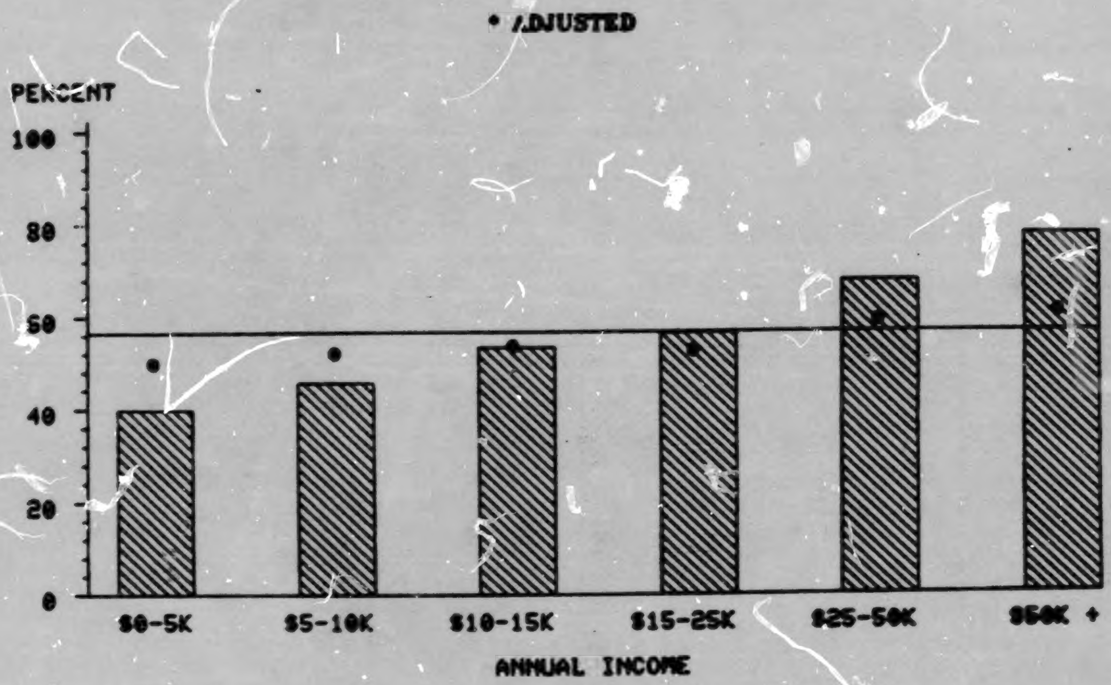
READING LITERATURE BY EDUCATION



Reading rate is strongly affected by level of education, rising rapidly with higher levels of education. Those who have only a grade school education are less than half as likely as the average person to read literature. In contrast, the proportion of literature readers among those who attended graduate school is one-and-a-half times the national average.

The pattern is little changed after adjusting for the effects of the other background factors. The linear relationship between education and reading persists, and education proves a strong factor in explaining rates of reading literature.

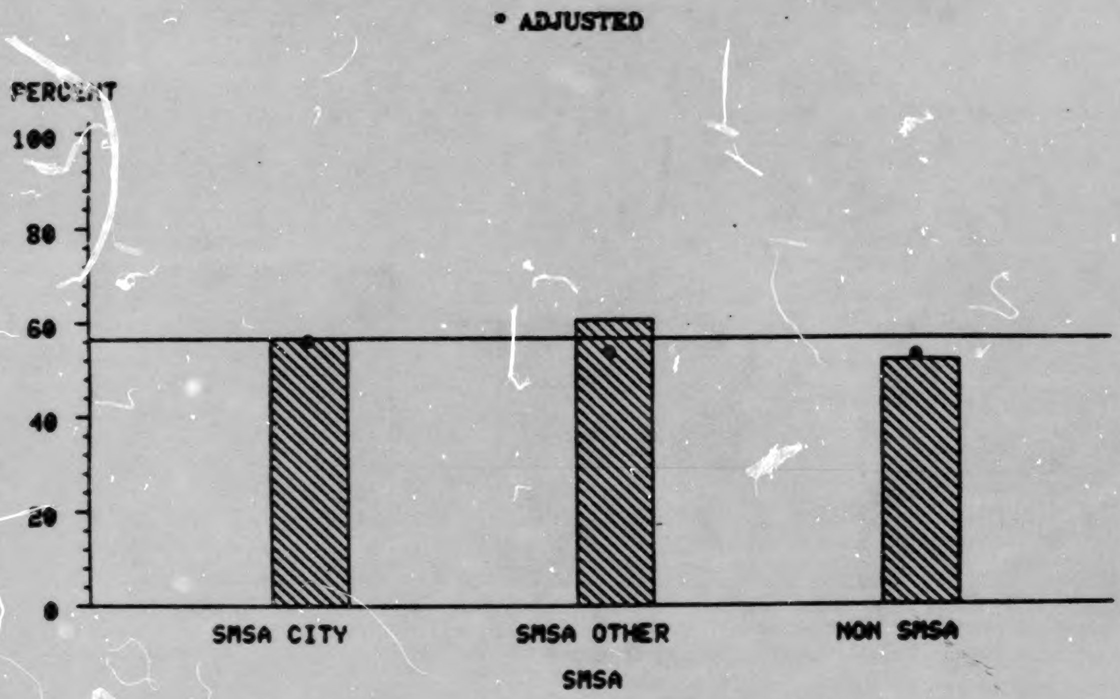
READING LITERATURE BY INCOME



The percentage of the population who read literature rises with income, crossing the national average with those earning $30,000- $49,999. The differences for the income brackets is large, spanning 38%.

Adjustments for the influence of other factors moves the attendance rates considerably closer to the average, demonstrating that other related factors like gender and education underlie some of the original income differences. Income itself, however, still provides some explanation of reading rates.

READING LITERATURE BY SMSA



Within SMSA's, the percentage of residents outside of the central city who read literature is greater than among people living in the central city. Those who reside outside of SMSA's have the lowest rate, but the differences between the three groups are not large.

These differences grow even smaller when other factors are controlled for. Educational levels (usually highest in the suburbs) probably accounted for the initial differences.

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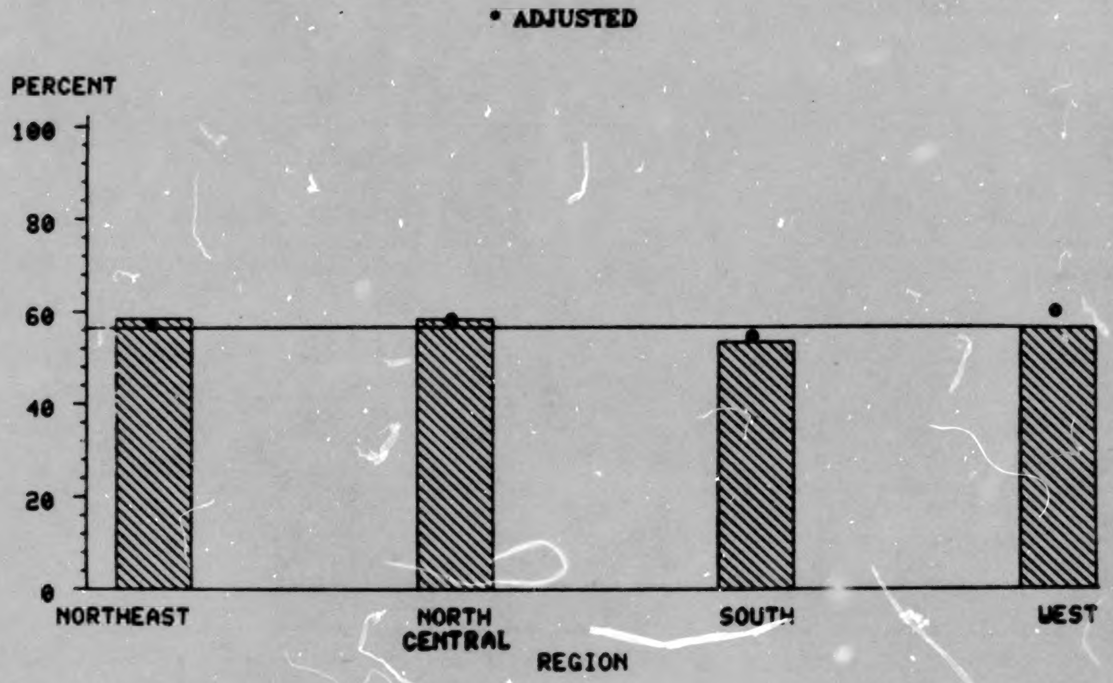
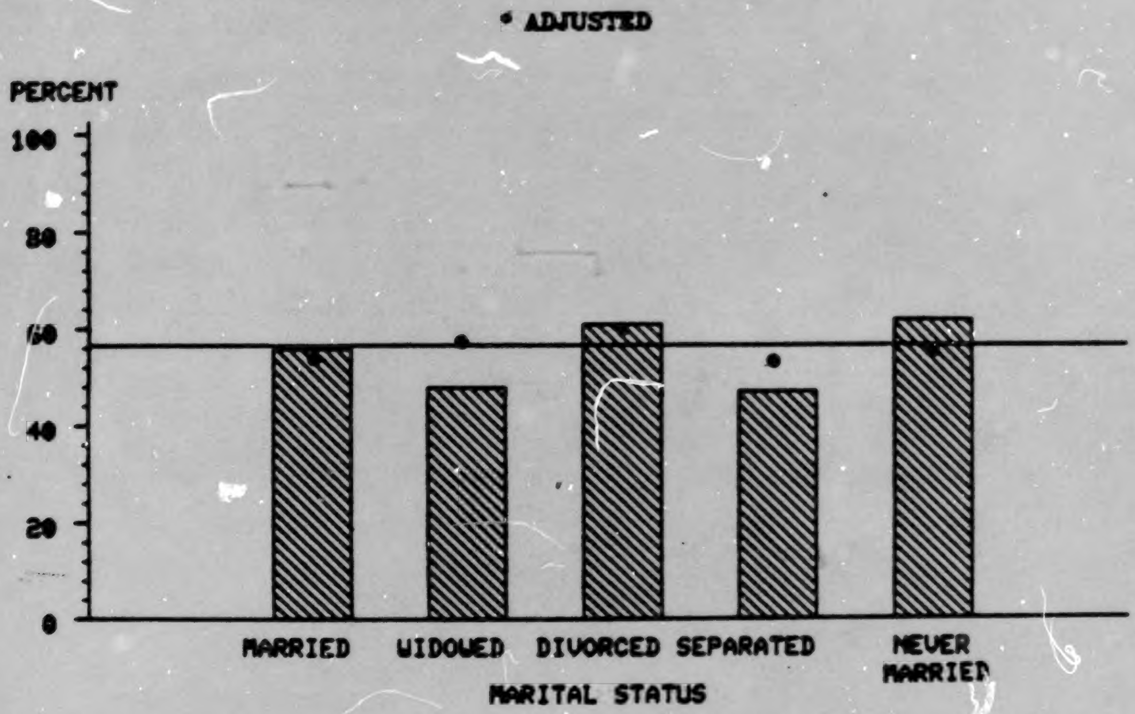
READING LITERATURE BY REGION



Northeast and Northcentral residents are slightly above the national average. Those in the West are considerably more likely than average to read literature, while those in the South are less likely, and fall below the national average.

About half of the difference in reading literature between residents of the West and of the South is due to the influence of other factors, but a clear regional difference remains evident even if these factors are held constant.

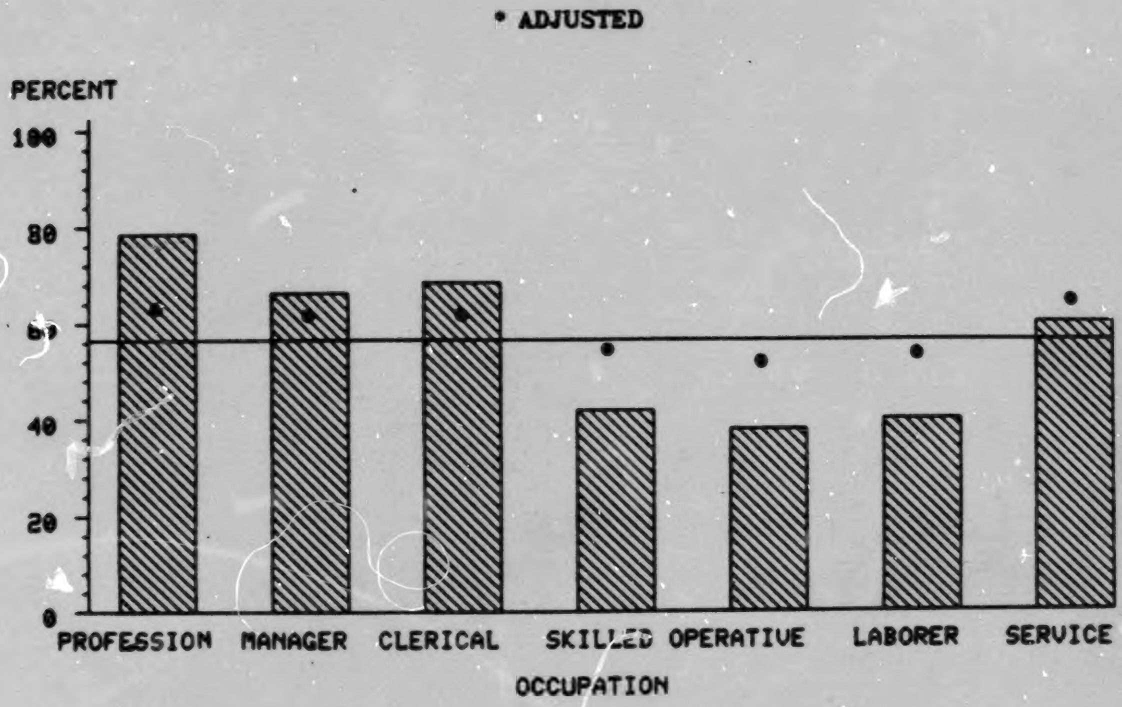
READING LITERATURE BY MARITAL STATUS



Those divorced and those never married have the highest reading rates; those widowed and those separated have lower than average rates; married individuals have an about average rate.

After adjustments for other factors, differences among marital statuses grow smaller, suggesting that other factors, such as income, may have accounted for the original variations.

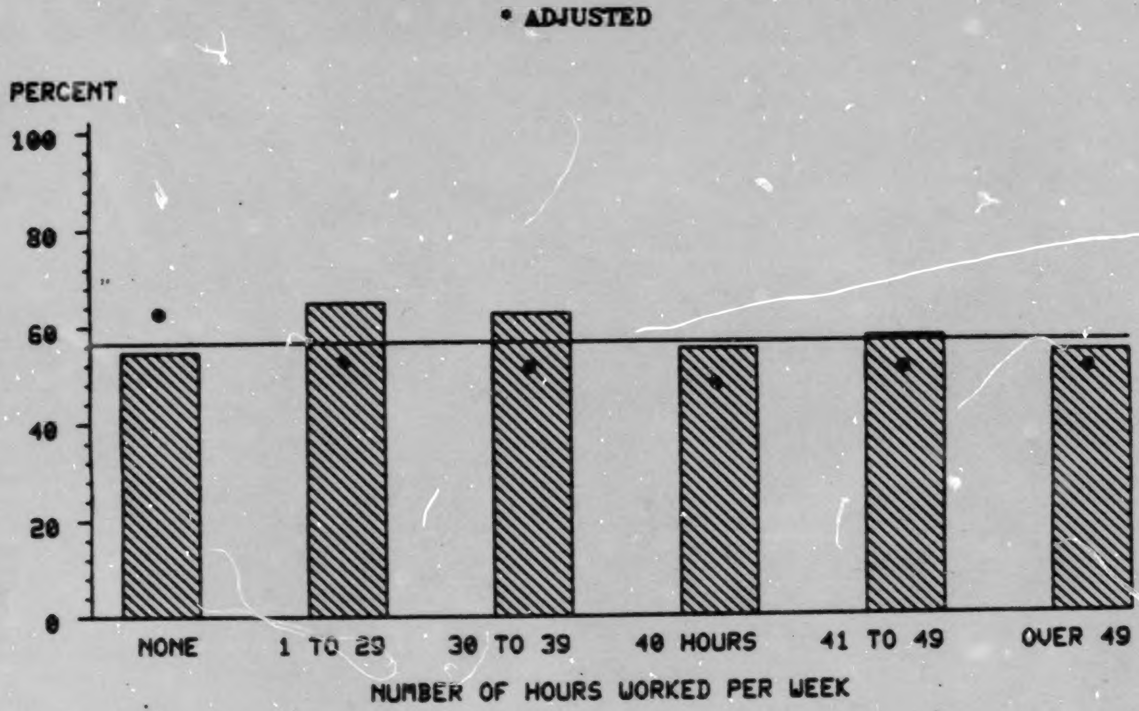
READING LITERATURE BY OCCUPATION



Students and white-collar workers (professionals, managers, salespersons and clerks and, to a lesser extent, service workers) have reading rates well above the average. On the other hand, blue-collar workers and retired people read at levels below the national average.

Removing the effects of associated factors considerably reduces this variation across occupational categories, until most hover around the national average. It's likely that education and sex accounted for some of the original occupational differences shown in the unadjusted rates.

READING LITERATURE BY HOURS WORKED



Part-time workers (under 40 hours per week) tend to read literature more than any other group.

However, this changes when other background factors are controlled. Those not working now show the highest rate for reading literature; other factors were apparently suppressing their unadjusted reading rate. On the other hand, these factors were increasing apparent differences between working groups who now show little difference in participation after these factors are taken into account.

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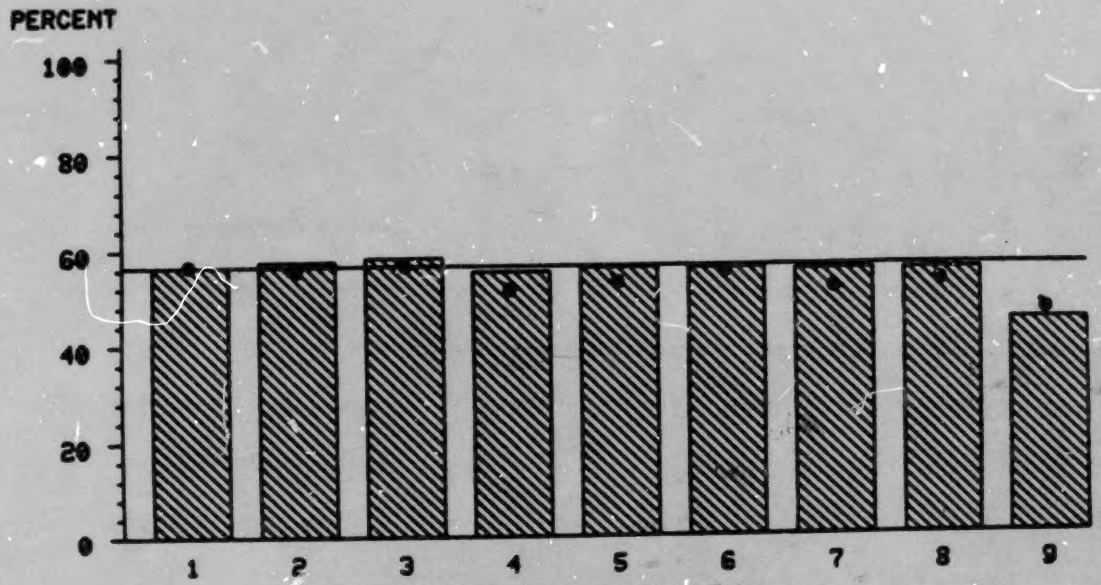
READING LITERATURE BY NUMBER OF CHILDREN



NUMBER OF CHILDREN UNDER 12

(1) No children
(2) One child, over age 6
(3) 2+ children, over age 6
(4) one child under 6
(5) one child under 6, one over 6
(6) one child under 6; 2+ over 6
(7) 2+ children under 6; none over 6
(8) 2+ children under 6; one over 6
(9) 2+ children under 6; 2+ over 6

Reading literature varies very little in relation to the number of children in the household. Only the group with two or more younger children and two or more older children reads at a rate noticeably below the national average.

After controlling for the influence of other factors, there is little change in this finding and presence of children seems to have little impact on reading levels.

INTERPRETATIONS OF PARTICIPATION IN THE ARTS

Do audiences for art performances, visitors at art galleries and museums, and readers of literature constitute separate or overlapping groups? If they overlap, can we predict attendance at a particular art event from participation in another type of art event? (If the overlap between two art events is no greater than average public attendance, then attendance at one event will not aid in predicting attendance at the second type of art event.) Does multiple participation form a complex pattern in which participation in one art event is associated with participation in a set of other art events? Finally, do particular background characteristics explain participation in multiple art events better than others?

Table 3.5 presents data on the degree of overlap between attendance at pairs of art events. Reading down the columns indicates what percentage of the art audience cited at the top of the column also has been part of the audience of the art event in the row. For example, 34% of those who had attended a jazz performance had also attended a classical music concert in the last 12 months; this compares to the 13% attendance rate for live classical performances for the sample as a whole. Note that the percentage overlap between two arts audiences is not symmetrical because the audiences for these eight arts forms differ in size. For instance, while 78% of those attending a jazz performance also read a form of literature in the last 12 months so did 56% of the sample as a whole; on the other hand, only 13% of those who read literature in the past 12 months also attended a jazz performance compared to 10% for the entire sample.

Because of the large number of visiters to art galleries and museums (22% of the sample), over 50% of the audiences for each of the other arts are comprised of those who have visited art museums; the same is true for reading literature. About a third of the audience for jazz performances also attend performances of classical music, musicals, and plays. A larger proportion of the audience for classical music (40-55%) are also part of the audience for musicals and plays. A still larger proportion of the audience for opera (50-65%) also attend performances of classical music, musicals, and plays. About 60% percentage of the audience for musicals attend plays. Approximately two-fifths of of the audience for plays are attenders of performances of classical music and musicals. About 50-65% of the audience for ballet overlaps with the audiences for plays, classical music, and musicals.

Table 3.5 shows particularly strong overlaps between the following pairs of audiences in percentage terms (40% and over):

- Jazz and musicals, literature and museums
- Classical music and musicals, museums and literature
- Opera and classical music, plays, musicals, museums and literature
- Musicals and plays, museums and literature
- Plays and classical music, museums and literature
- Ballet and classical music, musicals, museums and literature
- Museums and musicals and literature

As noted above, each art form shows high overlap with museums and literature, which have relatively high participation, although the reverse is not true (e.g. museums overlap only weakly with other art forms because of their much smaller audiences.)

Table 3.5: Overlapping Audiences for Arts Participation (Percentages of Respondents Reporting Being Part of the Combined Audience For Two "Core" Arts in the Last 12 Months).

Reference Audience

	Jazz	Classical Music	Opera	Musicals	Plays	Ballet	Museums	Literature
Percent Also Attending:								
Jazz	X	25%	27%	21%	25%	32%	22%	13%
Clas.Music	34	X	63	38	44	58	37	20
Opera	9	15	X	10	13	23	10	5
Musicals	41	54	64	X	39	64	44	27
Plays	31	41	51	62	X	50	33	18
Ballet	14	19	32	14	18	X	13	7
Museums	51	62	69	52	60	68	X	33
Literature	78	86	88	82	87	88	84	X

X = 100% (by definition)

The degree to which participators in a second art form can be predicted from participation in a first art form can also be statistically expressed in terms of correlation coefficients. This coefficient, which varies between -1 and +1, represents the improvement in predicting attendance at one event that is gained by knowing whether a person attends another art event. If the coefficient equals -1, then if a person participates in the first activity, we can always correctly predict that the person does not participate in the second activity. If the coefficient equals 0, then no systematic pattern exists--if we know that a person participates in a first art form, we are no better able to predict his/her participation in a second art form. On the other hand, if the coefficient equals 1, then the relationship is perfect-- if someone attends the first art form, then he/she attends the second.

Table 3.6 presents the correlations between each pair of arts audiences. The correlations are all positive and range from +.10 to +.39. To measure predictability (how much attendance at one arts activity predicts attendance at a second), we use the square of the correlation coefficient. Thus, the highest correlation, .39, between stage plays and musicals, means that only 15% (.39-squared) of the variance in play attendance is accounted for by attendance at musicals. In brief, knowing whether a person participates in one arts activity provides a useful but still modest improvement in predicting his/her participation in a second activity compared to the average attendance figures.

The correlations suggest that the overlap is greater between some art forms than others. The largest correlations, indicating more audience overlap, are found between:

1) Classical music and musicals (.32)

2) Classical music and plays (.32)

3) Classical music and art museums/galleries (.36)

4) Plays and art museums/galleries (.33)

5) Plays and musicals (.39)

Conversely, the lowest correlations are found between:

1) Jazz and opera (.10)

2) Jazz and reading (.12)

3) Opera and reading (.10)

4) Ballet and reading (.12)

These lower correlations suggest that these pairs of arts activities have relatively smaller degree of overlap across audiences.

Table 3.6: Correlations Between Arts Audiences

	Jazz	Classical Music	Opera	Musicals	Plays	Ballet	Art Museums
Jazz							
Classical	.21						
Opera	.10	.28					
Musicals	.17	.32	.20				
Plays	.19	.32	.21	.39			
Ballet	.16	.28	.22	.24	.23		
Gallery/Museums	.23	.36	.21	.29	.33	.24	
Reading	.12	.20	.10	.20	.21	.12	.26

As noted in Chapter 2, we can use these measures of overlap and correlation in Tables 3.5 and 3.6 to identify clusters of audiences to simplify these complex patterns of overlapping participation. For example, participation in a specific activity may be closely related to paricipation in a cluster of other art activities, while participation in a second activity might be associated with another cluster of activities. One approach to such clustering comes through factor analysis, which identifies clusters or groups of variables united by underlying factors.

In the case of the matrix of correlations of Table 3.6, only one factor emerges, as indicated in Table 3.7.*

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* As noted in Chapter 2, factor analysis simply identifies (through correlational analysis) those variables which are interrelated through some hypothetical underlying factor. The interrelationships are indicated through "loadings" (figures in Table 3.7); the higher the loading, the stronger the association with the hypothetical factor. However, factor analysis does not identify what the factor is, merely that it exists. Identification of the factor is a theoretical, rather than a statistical issue. Nor does factor analysis identify what the crossing point, or intersectio, between two factors is, except generally to identify objects (here activities) in the analyses that are unrelated to the hypothetical factors.

Table 3.7: Clusters of Multiple Participation in the Arts.

	Factor 1
Jazz	.428
Classical Music	.684
Opera	.474
Musicals	.671
Plays	.666
Ballet	.528
Museums	.672
Literature	.492

Table 3.7 identifies only a single factor underlying participation in all the art forms. There is no indication that participation separates into separate clusters; rather, participation in all the art forms is interrelated. The strongest associations are found among classical music, musicals, plays and museums, as indicated by their high loadings (values over .66) in all four cases. The activity that is least related to general participation, and to the other arts activities, is attending live jazz performances.

We can use the Table 3.7 evidence, then, to justify construction of a single index of arts participation. We do that by giving one point to each respondent for each arts activity in which the respondent reported participating. Scores can thus range from 0 (participation in no activities) to 8 (participation in all eight activities). Some 35% of respondents reported no such activities, 31% one activity, 14% two activities, 8% three, 5% four, 3% five, 2% six, and 0.7% seven; only .2% of respondents reported participating in all eight arts forms in the previous year.

BACKGROUND FACTORS RELATED TO THE ARTS PARTICIPATION INDEX

Overall participation in arts activities tends to be influenced by the same background factors that are consistently associated with participation in individual arts activities. Table 3.8 presents the association between the arts participation index and our eleven indes scores in the columns indicate the average number of arts activities in which participation (jazz, classical music, opera, musicals, plays, ballet, art displays or reading literature) is found across categories of these ten factors.

The first column presents the unadjusted figures, considering, as in Table 3.3, each background factor independently of all others. The second column (adjusted figures) shows the association between multiple arts participation and each background factor, controlling on all these other background variables. It is parallel to the entries in Table 3.4.

To illustrate, the average individual participated in 1.39 types of arts activities in the last 12 months (as shown in the Grand Mean). For persons with household incomes of $25,000 and over, the rate rises to 1.98 types of arts activities in the last year. However, when other factors are controlled (adjusted column), the participation rates for this group falls to 1.62, still above the national average but well below the 1.98 figure for that group prior to MCA adjustment. The indications are again that other factors associated with income, such as education and occupation, account for at least part of the high participation of this group.

Table 3.8 Index of Multiple Arts Participation by Demographic Factors, Unadjusted and Adjusted for Other Factors.

	Unadjusted	Adjusted
Grand Mean	1.39	1.39
Income:		
Under $5000	.83	1.19
$5000-$9,999	.93	1.23
$10,000-$14,999	1.14	1.30
$15,000-$19,999	1.21	1.29
$20,000-$24,999	1.41	1.39
$25,000 and over	1.98	1.62
not ascertained	1.42	1.41
SMSA:		
Cent City of SMSA	1.54	1.56
SMSA, Not Cent City	1.54	1.39
Non SMSA	1.08	1.25
Age:		
18-24	1.44	1.33
25-34	1.56	1.36
35-44	1.59	1.45
45-54	1.41	1.45
55-64	1.27	1.45
65-74	1.06	1.42
75-96	.75	1.20
Marital Status:		
Married	1.32	1.31
Widowed	1.00	1.43
Divorced	1.66	1.61
Separated	1.18	1.44
Never Married	1.69	1.56
Race:		
White	1.45	1.44
Black	.96	1.18
Other	1.23	.88
Gender:		
Male	1.24	1.16
Female	1.52	1.59
Education:		
Grade School	.34	.53
Some High School	.67	.75
High School Graduate	1.09	1.11
Some College	1.89	1.80
College Graduate	2.53	2.38

Graduate School	3.04	2.83
Hours of Work per Week:		
None	1.24	1.65
1-29	1.69	1.35
30-39	1.59	1.27
40	1.39	1.09
41-49	1.46	1.15
50 or more	1.51	1.32
Occupation:		
Professional	2.54	1.81
Managerial	2.00	1.73
Sales, Clerical	1.70	1.52
Craftsman	.93	1.46
Operatives	.71	1.34
Laborers	.81	1.40
Service Workers	1.34	1.51
Not Working	1.29	1.20
Keeping House	1.15	1.04
Student	2.16	1.55
Retired	.96	1.23
Number of Children:		
No Children	1.43	1.43
One 6-11	1.38	1.36
Two or > 6-11	1.42	1.40
One 0-5	1.23	1.20
One 6-11 & one 0-5	1.23	1.25
Two or > 0-5	1.14	1.25
1 6-11 & 2 or > 0-5	1.20	1.16
2 or > 6-11 &	1.38	1.31
2 or > 0-5	1.05	1.15
Region:		
Northern	1.50	1.44
North Central	1.40	1.43
West	1.67	1.47
South	1.17	1.27

The apparent influence of each of the background variables on overall arts participation is as follows:

Income

People in higher income brackets tend to participate in more types of arts activities. In part, this trend is attributable to the effects of associated background factors, such as education. That is, variations by income are diminished consistently by holding other factors equal.

SMSA

Respondents living in SMSA's tend to participate in more types of activities than those residing outside of SMSA's. Other background factors account for much of the difference between people living outside SMSA's and those living within an SMSA (but not its central city). These factors may be differential educational and income levels of people who live in the suburbs of cities.

Age

Multiple participation increases with age until a decline in the 45-54 age group. Most of these age differences (except for the two oldest categories) decrease when the influence of other variables is removed, suggesting that other factors (possibly income, marital status and education) explain some of this variation across age groups.

Marital Status

Widowed and separated individuals are less likely to participate in multiple arts than are the married, divorced or never married. These differences decrease when other factors are controlled, indicating the influence of other factors such as age or income.

Race

Blacks are less likely to participate in the arts than whites or "other" races. However, when other background factors are taken into account, blacks are more likely than "other" races to participate in the arts.

Gender

Women participate in more types of arts activities than do males, whether other factors are equal or not.

Education

The variety of arts activities attended is most strongly related to educational level, regardless of the impact of other background factors.

Working Hours

Those working part-time are most likely to participate in a variety of arts activities, while people not in the labor force are least likely to participate. Generally, both those working less than 40 hours and those working 50 or more hours are higher than average in multiple arts participation. However, when the effects of associated factors are controlled, the non-working show the highest rate of arts participation, indicating that other factors (e.g. age, education) suppressed their general rate of participation.

Occupation

Professionals, students, managers, and sales/clerical workers tend to have the most variety in their arts participation. Much, but not all, of their greater participation is attributable to the influence of other factors (as shown by rates moving toward the mean after adjustment for these factors). Probably, differential education and income are the major factors involved.

Number of Children

Individuals without children at home are most likely to manifest multiple arts participation; generally, those with children under six show lower than average participation. This overall pattern shows little change after adjustment for the impact of other background factors.

Region

Respondents in the West tend to participate more in the arts and respondents in the South participate least. After adjustment for the other background factors, arts participation is only slightly above the Northeast and North Central, while participation in the South comes closer to average as well, being only about 10% less than the other regions.

CHAPTER SUMMARY

This chapter presented basic data relating to public participation in eight different art forms: jazz, classical music, opera, musicals, plays, ballet, art galleries and museums, and reading literature. A series of ten questions asked in every month of SPA'82 recorded both attendance and direct performance in each of these arts. Estimates of participation (i.e. attendance) range between 3-4% of the population for ballet and opera, to over 20% for musicals, to a high of over 50% for those who read some form of literature. Although less than 1% of the sample had directly participated in a public performance of one of these arts forms, this is still a sizeable segment of the population (over a million people) appearing in a public performance.

These data describe participation in general. We are also interested in arts participation among different sub-groups of the population. Thus, we examined 11 demographic variables (age, gender, race, education, income, SMSA, region, marital status, work hours, occupation and number of children) to identify consistent differences among sub-categories of each variable. Two types of association are analyzed: participation by each demographic variable considered separately (unadjusted), and after all the other variables are held constant (adjusted).

Education emerges as the strongest demographic predictor of arts participation either considered independently or after adjustment of the other demographic variables. Occupation and income are also strong predictors; however, their predictive power is weakened considerably when other background factors are taken into account. (The single exception is the over $50,000 income group whose participation is higher than that of any other income group.) Both income and occupation are associated with education; thus, when education is held constant, income and occupation differences in participation tend to diminish. Education thus remains the strongest explanatory variable in arts participation.

Differences in participation are related to certain age, gender, work hours, marital status, SMSA and race categories. However, differences among most of these sub-categories are weakened considerably when other background variables are taken into account (i.e. in the adjusted figures).

In examining overlapping arts audiences, certain pairings of activities show more overlap than other pairings. However, factor analysis reveals a general pattern of interassociation across all the art forms, and thus did not reveal distinct clusters of arts participation. An index of multiple arts participation was constructed, and here again education was the most important variable in explaining scores on this index statistically.

Chapter 4

METHODOLOGICAL AND CONTEXTUAL FACTORS IN SURVEY RESPONSES

The responses to the core attendance questions in Chapter 3 raise several methodological issues in terms of their reliability and validity. Six methodological questions in particular are raised in this chapter:

1) How consistent are the overall sample responses from month-to-month, since each month was a separate random sample that should yield approximately the same annual estimates?

2) How internally consistent are reported monthly attendance and reported annual attendance responses?

3) How consistent are these data with aggregate level data collected from arts organizations and performing companies?

4) How closely do these data seem to compare with other national and regional surveys of arts participation?

5) How closely do the 1982 U.S. data compare with data from parallel surveys in other countries?

6) Do logit-probit analyses suggest a different pattern of results from the Multiple Classification Analysis (MCA) results analyzed in Chapter 3?

An answer to the first question involves a separate tabulation of SPA responses for each of the 12 survey months. These tabulations are controlled for the monthly sample differences in respondent characteristics.

The second question involves analyzing a specific set of more detailed and specially designed questions pertaining to attendance in the 11 months preceding the target survey month; these detailed questions were developed according to a statistical model that allowed for comparison of the consistency between monthly and yearly estimates.

The third question involves some difficult and somewhat arbitrary comparisons with aggregate data from arts organizations about actual attendance patterns at certain types of performances. These comparisons are less than ideal because of the problems in the methodologies employed in recording attendance from box office figures which are the basis of the official aggregate attendance figures.

The fourth question involves comparisons of SPA responses to other surveys that have also estimated proportions of Americans who attend arts performances. Some of these comparisons are also hampered by different measurement procedures and by the variations in the phrasing of attendance questions.

The fifth question also involves methodological problems of comparing questions, including language differences when certain international comparisons are attempted. Nonetheless, some surprising cross-national parallels in responses were found.

The sixth question involves a separate statistical analysis program, called "logit-probit" analysis of the attendance data in Chapter 3. This analysis may be more appropriate for percentage attendance data, particularly for those attendance questions in the survey that were answered positively by 10% or less of those interviewed.

A further methodological question to be examined in a subsequent report deals with how valid the general attendance responses appear to be in terms of the specific performances that respondents had in mind when answering the arts participation questions. That report represents analyses of a collection of open-ended "follow-up" responses in separate national telephone surveys of arts participation conducted by the University of Maryland in June of 1983 and January of 1984. In this survey, respondents who said they had attended arts performances in the last year were asked specific questions about their most recent attendance at such a performance: its location, the names of the performance and performers, and whether the performance was an amateur or professional production. The extent to which respondents can provide appropriate answers to these questions affects one's confidence in these questions as valid indicators of arts attendance.

Contextual Questions:

In addition to these questions which centered largely on method, this chapter also contains five additional analyses that elaborate the analysis of arts participation data in Chapter 3. These involve:

7) Analysis of "locational" or "facility" differences in the types of performances attended. What proportion of jazz, classical, opera, etc. performances were seen at different types of facilities (e.g. college campuses, in parks, in churches)?

8) Analysis of attendance patterns by more fine-grained geographical factors than the five regions or three urban-rural categories examined in Chapter 3. For this purpose a special 24-category geography variable was created which subdivides the country into the four regions, but further examines the larger metropolitian areas in each region. These areas include New York City, Boston, Philadelphia, Washington, Baltimore, Detroit, Chicago, St. Louis, Los Angelas and the San Francisco bay area. In addition certain Southern cities are combined in this analysis: Atlanta, Miami, Houston, Dallas, and New Orleans.

9) Analysis of arts attendance by very detailed occupational categories, to note important variations in attendance among those within the broad range of "professional" (or "service") occupations, for example.

10) Analysis of arts attendance by other background variables collected in the survey that seem of less central relevance to arts attendance, but may affect it nonetheless. These background variables include overall size of the household, types of housing unit (house, apartment, trailer, etc.), and presence of telephones or automobiles in the household.

11) Analysis of arts attendance according to whether other individuals in the respondent's household attended. Is it the case, for example, that one is more likely to attend performances if one's spouse also attends, or are the dynamics of attendance more complementary, i.e. if one goes, the other stays home or does something else?

This latter question involves a very complex analysis of the present data collected on a household basis, by using attendance information obtained from spouses and other household members as predictor variables for the respondent's attendance. Such analyses are beyond the scope of the present report, but will be reported in subsequent reports.

1) MONTHLY DIFFERENCES IN ARTS ATTENDANCE

As noted in Chapter 2, data collection was conducted in separate, relatively equal, samples for each of the 12 months of the calendar year 1982. This monthly sampling makes it possible to examine attendance differences at arts performances both on a monthly and on a seasonal basis. These monthly differences are shown in Table 4.1 in two parts: a) reported attendance in the prior month and b) reported attendance in the prior 12 months. Figure 4.1 graphically portrays the differences in monthly differences.

With regard to participation in the prior month (remembering that January 1982 respondents were reporting on December, 1981 attendance, February respondents on January, 1982 attendance, etc.), we find the following monthly peaks and valleys:

	Highest attendance months:	Lowest attendance months:
Jazz:	April to August	December and January
Classical Music:	March to July	September to November
Opera:	January and February	September and October
Musicals:	April and May	September to November
Plays:	February and May	August to November
Ballet:	May and June	August to November
Museums:	April to August	November to February

In general, these patterns of reported arts attendance tend to indicate higher participation rates in the spring and summer months and lower participation in the fall and winter months. The main exceptions to this pattern are for opera (peaking in January and February), and for stage plays (peaking in February).

Month-to-month variations for yearly attendance are far lower than for monthly attendance. One reason for this greater year round stability is that the reporting period is longer, that is the seasonal and month-to-month variations become averaged for the annual reporting period and already aggregated into the rate of attendance. Moreover, the proportions being estimated are much higher (e.g. over three times as many respondents reported going to jazz in the previous year as those reporting going in the previous month). Nonetheless, there are some substantial differences in reported yearly attendance (Table 4.1b), such as the high proportions of classical music, opera and play attendance in the February survey, the low proportions of classical music, musical, play performance and museum attendance in the December survey, and the low proportion of museum attendance in the March survey. Otherwise the differences across months are within 1 or 2 percentage points of the overall proportion for the entire survey.

The smallest monthly variation is found for reading. Outside of the high reading levels for February and November and the low reading levels for December, the estimates are within 1 percentage point for the entire survey year.

Table 4.1: Monthly Percentages in Reported Arts Attendance

% who went at least once

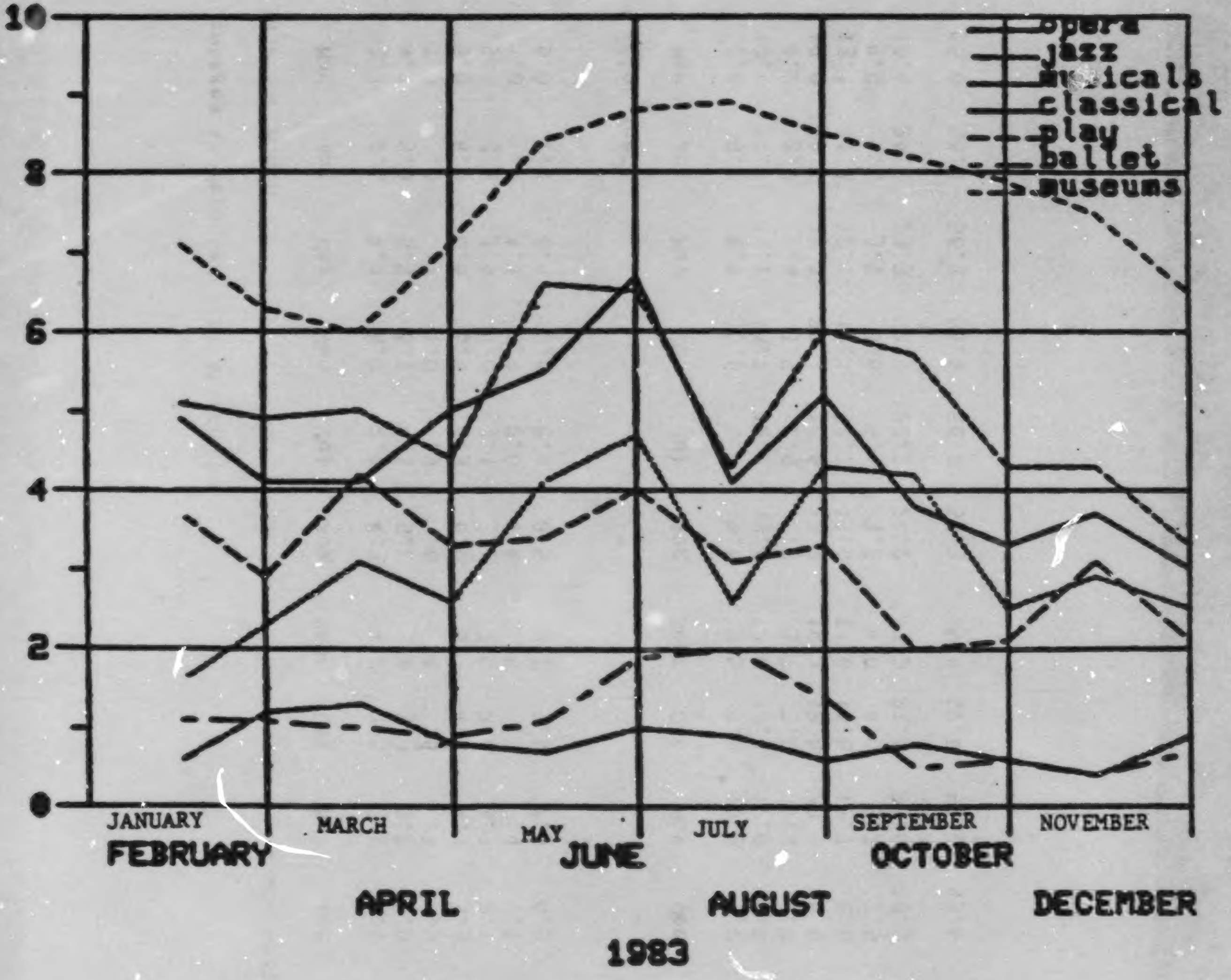
A. Attendance in Prior Month

	1982 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	TOTAL
Jazz	1.6	2.3	3.1	2.6	4.1	4.7	2.6	4.3	4.2	2.5	2.9	2.5	3.0
Classical	4.9	4.1	4.1	5.0	5.5	6.7	4.1	5.2	3.8	3.3	3.7	3.0	4.4
Opera	.6	1.2	1.3	.8	.7	1.0	.9	.6	.8	.6	.4	.9	.8
Musicals	5.1	4.9	5.0	4.4	6.6	6.5	4.3	6.0	5.7	4.3	4.3	3.3	5.0
Plays	3.7	2.9	4.2	3.3	3.4	4.0	3.1	3.3	2.0	2.1	3.1	2.1	3.0
Ballet	1.1	1.1	1.0	.9	1.1	1.9	2.0	1.4	.5	.6	.4	.7	1.1
Museums	7.1	6.3	6.0	7.1	8.4	8.8	8.9	8.5	8.2	7.9	7.5	6.5	7.5

B. Attendance in Prior Year

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	TOTAL
Jazz	8.8	10.6	8.6	9.7	9.1	10.6	9.8	9.8	9.5	9.4	10.3	9.2	9.5
Classical	12.1	17.4	12.4	14.3	13.7	13.7	12.8	13.8	12.0	12.4	12.0	9.5	13.0
Opera	2.5	4.6	4.2	3.0	3.4	3.5	2.9	2.3	3.7	3.0	1.4	2.0	3.0
Musicals	16.8	19.4	18.0	18.5	20.2	20.3	18.6	18.2	19.1	18.4	20.2	16.0	18.6
Plays	11.8	13.7	13.1	11.8	12.1	12.1	12.7	11.0	11.8	11.6	12.7	8.6	11.9
Ballet	2.5	4.7	4.9	5.6	3.7	5.6	4.9	3.8	4.0	4.0	3.2	3.5	4.2
Museums	22.7	22.8	19.4	24.4	23.3	22.9	22.2	20.2	23.2	21.6	23.6	19.3	22.1
Read Novels, etc.	53.8	60.0	56.0	56.4	56.3	56.9	56.2	55.3	55.4	57.4	59.9	53.6	56.4

Figure 4.1: Monthly Variations in Arts Participation



2) EXAMINING THE CONSISTENCY BETWEEN YEARLY MONTHLY ESTIMATES: A STATISTICAL MODEL

Our second methodological question is: Are the monthly estimates consistent with the yearly estimates in terms of some basic assumptions and principles from mathematical probability theory? We can explore this question by examining the structured properties of the respondent's yearly estimate of particiation in terms of the respondent's monthly estimate of participation.

To do this:

Let M = proportion of respondents participating each month and
let m = the complement proportion not participating that month (thus, M+m = 1)

O = proportion of respondents participating in other months and
let o = the complement proportion not participating in other months (O+o = 1)

Theoretically these two questions separate four possible "types" of resondents:

MO = proportion participating both in the prior month and also participating the preceding (11) months of the year,

Mo = proportion participating in the prior month but not participating in preceding months,

mO = proportion not participating in that month but participating in preceding months, and

mo = proportion not participating in that month and also not participating in other months.

Thus, 1 - mo = total proportion participating in the course of a year (where MO + Mo + mO +mo = 1).

From the general SPA questions (see Table 2.1), we have estimates both of mO, and of the sum of (MO and Mo) together. Our problem is to untangle these variables and get separate estimates of MO and of Mo. Therefore, a set of questions was inserted in the November and December surveys asking about participation in the prior 11 months; the purpose of these questions was to generate separate figures for MO and Mo.

Adding MO to mO, provides an independent estimate of O (since MO + mO =O). Subtracting this value of O from 1 provides an independent value of o and this value is entered into the equation for yearly participation, which is 1-mo.

This independent "theoretical" estimate (1-mo) can then be compared with actual responses to the survey question "Did you participate in the last year?"

As shown in the last column of Table 4.2, the estimated ratio from these monthly data indicate about a 20% higher attendance rate for jazz performances for the year than was actually obtained, indicating that respondents may exaggerate their reported monthly participation, or under-report their yearly participation, in response to the initial attendance questions in the survey. The final columns in Table 4.2 show inflated monthly estimates of about the same magnitude for the other basic arts questions examined in Chapter 3.

Another way of examining these findings is to show the overlap (between the prior month and the 11 months before that month) proportions that would be consistent with the monthly and annual estimates and to compare these with the actual overlap estimates from respondents. Accordingly, if it were the case that 9.5% of the population went to a jazz performance in the last year and 3.0% went in the last month, the necessary condition for this to hold (according to probability theory) would be for only 10% of those who attended in the prior month to have also attended in the prior 11 months. However, as can be seen in Table 4.2, among those respondents who said they had attended a jazz performance in the prior month, almost three-quarter (73%) said they had attended in the prior 11 months. That is over 7 times the likelihood allowable within the constraints of the probability model.

The theoretical figures are equally divergent for the other core activities: 9% allowable for classical performance (vs. 75% respondent estimate), 10% for opera (vs. 64%) , 14% for musicals (vs. 79%), 10% for plays (vs. 77%), 3% for ballet (vs. 69%), and 16% for art galleries and museums (vs. 79%). These discrepancies are consistent with the view of dramatic "telescoping" of respondent estimates to recent periods, i.e., the reporting of earlier attendance as having occurred in the prior month, thus creating a severe inflation of the participation rate for the month. At the same time, they would also be consistent with a model that treated the annual estimates as underreporting actual participation over the year.

This problem is especially unfortunate because it leaves ambiguous the use of the estimates of frequency of attendance for the prior month, which followed the monthly participation question. These frequency questions are the only source from the present data for estimating total volume of participation, i.e. taking account not only of the proportion of participants, but also of the number of times each participant attends. That is, theoretically at least, the only way in which survey figures could be compared with aggregate ticket sales or other audience data from institutions, since such aggregate data which do not distinguish between two attenders and a single attender who attends twice.*

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* In terms of translating the monthly frequency data into "head count" figures, the following tabulation provides the frequencies of monthly attendance per number of participants -- using the weights in parentheses.

Answer Category: Weight:	One (1)	2-3 (2.5)	4-5 (4.5)	6 or more (8)	Month
Jazz	351	122	22	16	1.55
Classical	569	162	29	22	1.64
Opera	113	20	4	4	1.51
Musicals	715	145	11	8	1.36
Plays	437	93	6	6	1.37
Ballet	157	27	2	0	1.25
Art Gallery/Museums	893	312	56	43	1.74

In other words, not only was attending art galleries and museums mentioned by more respondents than other activities, but those who reported participating in that activity reported participating more often (1.74 times per participant per month) than participants in other activities. Attending classical concerts was also higher on a per participant basis (1.64 times per participant per month) while attending ballet (1.25 times per participant) was at the lower end of the frequency range.

e 4.2: Consistency of Annual and Monthly Estimates

	a	b	c	d	e	f	g	h	INFLATION RATIO
	YEARLY - (m+O)	MONTHLY (m)	= YR-MO	+ MOxESTIMATE(O) (m)	=o	O	O x M	= 1-om	h - a
Jazz	.095	.030	.065	+.030 x .73	.087	.913	.913 x.970	.114	+20%
Classical	.130	.044	.086	+.044 x .75	.119	.881	.881 x.956	.158	+22%
Opera	.030	.008	.022	+.008 x .64	.027	.973	.973 x.992	.035	+17%
Musicals	.186	.050	.136	+.050 x .79	.176	.824	.824 x.950	.217	+17%
Plays	.119	.030	.089	+.030 x .77	.112	.888	.888 x.970	.139	+17%
Ballet	.042	.011	.031	+.011 x .69	.039	.961	.961 x.989	.050	+19%
Galleries/ Museums	.221	.075	.146	+.075 x .79	.205	.795	.795 x.925	.265	+20%

EXAMPLE:

For Jazz: the YEARLY ESTIMATE is .095 and the MONTHLY ESTIMATE is .030.
This means that the proportion not attending last month is .970
The proportion attending only in the prior 11 months is
o=[.095 - .030 = .065]
which should be added to EST [O] for the preceding 11 months; or
.065 + .030 [.73] = .087, which leads to the:
Estimated proportion not attending in the prior 11 months, which is o= .913

The ESTIMATED YEARLY attendance is 1-MO = 1- [.970] [.913]= 1-.886 which is .114 or an 11.4% ESTIMATED PARTICIPATION in the last year. Compared to the 9.5% survey response in straightforward question in Table 3.2, this is a 20% overreporting ratio.

3) COMPARISONS WITH AGGREGATE ATTENDANCE DATA

Perhaps the most appropriate comparison of the core attendance data in Chapter 3 would be with the audience "head count" attendance data compiled by arts organizations. However, this is perhaps the most difficult of comparisons to make with much statistical confidence, as has been noted by several observers (e.g. Toffler 1965; Ennis 1972; Robinson 1976).

First, the "head count" or "tickets sold" data are collected and maintained differently across organizations. These may include tickets sold rather than persons attending, thus inflating the actual attendance rate. These may or may not include complimentary tickets given to reviewers, performers or other associates. More fundamentally, ticket sales do not reflect multiple attendance by the same individual. One individual who attends five opera performances is not distinguishable from five separate individuals attending once. Moreover, what is being considered an opera performance? What if the opera organization presents an operetta, or two leading performers simply singing duets and arias? Are head counts for summertime outdoor performances included? The methodological problems become increasingly complex when other forms of art performances (e.g. dance or theatre) are considered.

In fact, one of the main reasons for conducting a survey such as the SPA was to put these relative attendance figures in somewhat clearer perspective, by making the individual the unit of analysis rather than attempting to resolve the diverse methods various arts organizations use to measure their audiences. Therefore one should not be surprised to find arts attendance figures in Table 4.3 that diverge significantly from data in the SPA.

Such aggregate figures for five types of arts performances (symphony, opera, theater, art museums and other museums) examined in the SPA are given in Table 4.3. They show certain parallels and certain discrepancies. While there are some differences in the time periods being considered, these do not seem responsible for those discrepancies that are found.

The figures that appear most congruent are those for symphony orchestras and for art museums. In the SPA, 13% of respondents reported they had attended classical music performances, which translates to about 21 million people in the population at large. That is very close to the 22.8 million attendances reported in the Statistical Abstract for 1981 (even though this figure may not include much or any chamber music). That may mean that the attendance figures could be too high -- although taking into account multiple attendances per participant would show lower attendance than the SPA figures.

The official figures for opera attendance, on the other hand, appear high, and would only be consistent if one were to assume each attender went to two opera performances (an assumption that does not seem unreasonable). Moreover, if the SPA figures are accurate, the two to one ratio of symphony to opera attendance in the official data exaggerates the relative number of opera attenders in relation to symphony attenders.

Theater attendance measured by tickets sold is lower than the reported attendance found by the SPA, particularly without taking multiple attendances into account. It appears that these Broadway-based official figures may underestimate national theater attendance by at least 50%.

On the other hand, the official figures for museum attendance appear to be too high. While the SPA attendance estimates for art museums would be 36 million who visited at least once in the last year, and with multiple attendance could easily come within reach of the official figure of 49.8

million, the SPA question also includes attendance at art galleries as well as at art museums.

A more serious overestimate suggested in Table 4.3, however, is for science and historical museums. These are almost four times as high as the number of SPA respondents reporting visiting such museums. Some of this four-fold difference could be due to multiple attendance. However, it is the ratio of arts museums to science-history museums that is most discrepant. The SPA data suggest at most a two to one ratio of visiting non-art museums to art museums; the official figures suggest a ratio of over four non-art museums to one art museum.

Once again, it should be noted that these discrepancies are due to observing different definitions and units of analysis. If measurements of the two behaviors were more closely coordinated, closer figures from those in Table 4.3 would undoubtedly be found. That would seem a worthwhile goal for further research.

Table 4.3: Comparisons of Aggregate Figures with SPA Estimates
(Source: 1983 U.S. Statistical Abstract p.296)

	1981 Attendance	SPA (1982)	Population Projection
Symphony Orchestras	22.8 million	13%**	21.4 million**
Opera	11.1 million	3%	5.0 million
Theatre (tickets sold)			
Broadway	10.0 million	19.9% musicals	30.7 million
Road Shows	11.3 million*	+12.0% non-musicals	+19.6 million
THEATRE COMBINED	23.3 million		
		26.0% Total (excluding respondents attending both)	42.7 million (excluding overlap)
	1979		
Museums Total	347.8 million		
Art	49.8 million	22.0%	36.3 million
History	85.6 million	NOT ASKED	
Science	150.3 million	37.0%	60.8 million

* Projected estimate (from SPA) based on ratio of box office receipts to attendance for Broadway shows

** Includes chamber music

4) COMPARISONS TO ATTENDANCE DATA FROM OTHER SURVEYS

The Survey of Public Participation in the Arts was not the first or the only national survey to obtain data on the extent of attendance at arts performances. The Louis Harris Organization conducted perhaps the first national survey of arts participation in 1973. A second large scale survey was conducted by HUMRRO in the Southern part of the U.S. in 1977, as reported in Johnston (1984), Reed and Marsden (1981) and Orend (1979).

A comparison of these various survey estimates is given in Table 4.4. It can be seen that the SPA data tend to be consistently lower than those obtained in these earlier surveys. First, the Harris survey obtained a 28% figure for attendance at either concerts or opera; combining the SPA data for these art forms gave an estimate of only about half that figure -- about 15%. Similarly, for attendance at ballet and modern dance, arts museums, science museums and historic buildings, the Harris figure -- collected 10 years previously from a national population with less formal education -- are almost twice as high. The figures for live theater are relatively close (33% vs. 26%), but the Harris data are still higher.

The Harris Organization has completed three subsequent network studies, beginning in 1975, repeated in 1980 and repeated most recently in 1985. A comparison of the 1980 and 1984 surveys provides an ideal comparison since the SPA'82 was done midway between these two survey years. That comparison, as described in much more detail in Appendix B, also shows the Harris attendance and participation figures to be significantly higher than those in the SPA.

Estimated attendance in the South is also higher in the 1977 study of Arts Participation in the South than was found among Southern respondents in the SPA'82. But the variations with that study are not as large as those with the Harris data -- between between 3 and 6 percentage points for six of the seven items, and under 15 percentage points for the seventh item (painting, art exhibits). Moreover, this latter figure may be lower in the SPA, because of definitional differences: the SPA data do not include paintings or art exhibits attended outside of museums or galleries, and that may account for the lower figures.

Table 4.4: Comparisons to Other Surveys
(Percentages Reporting Attendance in the Prior Year)

A) Harris (1973)		SPA'82
Concerts or Opera	28%	15%
Live Theatre	33%	26%*
Ballet or Modern Dance	9%	5%**
Art Museums	50%	22%
Science Museums	51%	23%
Historic Buildings/Museum	58%	37%

* Includes musicals and non-musicals from the SPA

** Estimate indicates data from University of Maryland follow-up study on attendance at modern dance performances.

B) Arts Participation in the South (1977)		SPA'82 South	(National)
Jazz Performance	13	9	(10)
Symphony or Chamber Music	17	11	(13)
Opera	6	3	(3)
Go to Theatre	26	23	(26)
Ballet or Modern Dance	9	4	(5)
Painting, Art Exhibit	34	20*	(22)
Tour Buildings/Museum	48	43****	(39)

*** In art galleries or museums only

**** Includes two questions in the SPA, one on visits to science, natural history and other museums and one on visits to historic places.

V. COMPARISONS WITH ARTS SURVEYS IN OTHER COUNTRIES

National surveys examining the extent of public participation in the arts have been conducted in several other countries. Some of these surveys (e.g. France, Great Britain and Canada) have been repeated across time making it possible to track trends in reported participation and attendance patterns.

The data presented in Table 4.5 represent a sample of more recent and "comparable" survey results. Here, of course, more serious problems of comparability are possible than those with prior U.S. studies, since cultural differences arise in terms used to describe different types of arts performances -- as well as the language and terms to describe them. For example, cabaret and certain musical theatre performances in France are unique to that culture, as are certain jazz performances in the U.S. context. Nevertheless, Table 4.5 indicates several interesting parallels, as well as differences, from the U.S. results.

Although the music questions in other countries differ (e.g. the French and Dutch questions on jazz include popular as well as jazz concerts), the results seem to indicate that American adults attend more music concerts of all types. Americans report 13% attendance at classical music performances in the last year (compared to 8% in France and less than 13% attendance in the Netherlands), and the U.S. monthly rate of 4.4% attendance at classical concerts far exceeds the British rate of less than 1%. While the figures for jazz performances are lower than in France and the Netherlands, the U.S. data do not include popular music concerts, which have a consistently higher attendance rate in the U.S. (according to the supplementary national survey of the University of Maryland to be described in a subsequent report).

The differences in attending opera and theatrical performances do not seem as large. The 3% annual attendance rate at opera in the U.S., for example, compares to a 2% rate in France, and in the figures for non-musical theatre (and musicals) are also similar. The combined figures for musical and non-musical theatre for the Netherlands also appear close to those which would be found for such (combined) theatre figures for the U.S. and France. However, the combined monthly figures for the theatre-opera-ballet performances in Great Britain do appear to be somewhat lower than would be the case for the U.S. The U.S. figures for attending ballet are slightly lower than reported in the French survey, but higher than that reported in the Netherlands.

The reported rate of visiting art museums and galleries in the U.S. sample is lower than that reported in the French and Dutch samples, but is again higher than that reported in the British samples.

In general, then, these survey figures indicate that the American report has similar arts participation and attendance rates similar to those found in other Western European countries. Attendance at music performance appears to be somewhat higher on a per capita basis in the U.S. data, but attendance at art galleries and museums appears lower -- at least in comparison to such attendance in France and the Netherlands. In general, reported monthly attendance rates in the U.S. sample for all arts activities do seem to be higher than those in Great Britain -- although as noted in Section 2 of this chapter the monthly U.S. figures may be somewhat inflated.

Table 4.5: Comparison of SPA Data With Responses to Arts Survey Questions in Other Countries

Attended performances of

	In Last Year			In Last Month	
	USA 1982	France 1981-82	Netherlands 1979	USA 1982	Great Britain 1980
Jazz	9.5%	10.0%*	13.0%*	3.0%	NA
Classical	13.0	8.0	13.0	4.4	
Opera	3.1	2.0	13.0	.7	5.0%
Operetta, musicals	18.6	13.0	23.0	5.0	5.0
Drama	11.9	11.0	23.0	3.0	5.0
Ballet	4.1	5.0**	2.0	1.1	5.0
Art galleries/ museums	22.1	28.0	32.0	7.5	3.0
Reading	56.0	NA	NA	NA	NA

/ Less than 0.5 percent
* Jazz and Pop music concerts combined
** Professional performances only

6) ALTERNATIVE SIGNIFICANCE TESTS OF DEMOGRAPHIC FACTORS RELATIONS TO ATTENDANCE (LOGIT-PROBIT ANALYSIS)

In order to test properly for the significance levels of the relation of background factors and attendance, a special multiple regression program called Probit Analysis was conducted. Probit analysis is especially designed for situations in which the dependent (predicted) variable has only two categories (such as attendees vs. non-attendees) and has values above .90 or below .10. That means it would be particularly appropriate for dependent variables such as opera or ballet attendance, for which less than 5% of the SPA respondents said they had attended; and it may be useful as well as for jazz, classical music and play attendance for which only about 10% of the sample reported attended.

Table 4.6 shows the *t*-statistic values for the probit analysis on the basic attendance data in comparison to the usual significance test via ordinary least squares (OLS). An obtained value of *t* of greater than about +2.0 is significant at the .05 level of chance, about 2.5 at the .01 level, 7.0 at the .0000000001 level and 15 at the .1 x 10 -30 level. Several conclusions from the table emerge:

1) Education continues to be far and away the most statistically significant predictor of all forms of arts attendance.

2) Age is a significant predictor of attendance at jazz, classical music, opera, musicals and play performances; probit analysis, (but not OLS) suggests it is important for art museum attendance as well.

3) Gender is a significant predictor, except for jazz performances.

4) Race is a significant predictor, although least so for opera performances.

5) Income is a significant predictor for musicals, less so for plays and art museums; it is barely so for classical music and for ballet, and not a significant predictor at all for opera or for jazz.

Virtually the same conclusions are reached by this probit analysis, the, as by the usual OLS procedures. The main exceptions are that the probit analysis suggests that income is a significant predictor of ballet attendance while OLS does not, and that age is a significant predictor of art museum attendance, while OLS does not. On the other hand, probit analysis suggests that income is not a significant predictor of jazz attendance and race is not a significant predictor of opera attendance -- while OLS suggested both are statistically significant predictors.

In relation to the Table 3.4 analysis, probit analysis indicates that the slight income effects of jazz attendance are not significant, but that income effects are significant for classical music, opera, ballet and art museum attendance. It confirms the significance of the modest differences by age, by gender, and by race, many of which show up as less than 2 percentage point differences in Table 3.3.

Table 4.6: Results of Probit Analysis of Demographic Factors on Arts Attendance (Unweighted)

a) Probit Analysis t values

	JAZZ	CLASSICAL	OPERA	MUSICALS	PLAYS	BALLET	ART GALLERY/ MUSEUM
Income	.3	3**	1.9	12***	7***	2.7**	7***
Age	18***	6**	7**	5**	5**	.1	3**
Education	21****	37****	18****	36****	34****	21****	42****
Gender	.4	11***	4**	11***	8***	12***	8***
Race	7***	6**	2.4*	7***	6**	4**	5**

b) Ordinary Least Squares t values

	JAZZ	CLASSICAL	OPERA	MUSICALS	PLAYS	BALLET	ART GALLERY/ MUSEUM
Income	3**	2.5*	1.8	11***	6**	1.9	6**
Age	16***	9***	7***	7***	7***	1.3	.1
Education	22****	40****	19****	38****	37****	22****	46****
Gender	.6	9***	4**	10***	8***	11***	8***
Race	7***	5***	1.6	5**	5**	3**	4**

****	Significant beyond .0000000000000001	level
***	Significant beyond .0000000001	level
**	Significant beyond .01	level
*	Significant beyond .05	level

7) FACILITY DIFFERENCES IN TYPES OF PERFORMANCES

The seven types of performances examined in Chapter 3 take place in different types of facilities. Some facility-performance patterns are obvious, such as concerts that take place in concert halls, art displays that are shown in galleries and museums, and jazz performances that take place in nightclubs.

Nonetheless, much "blending" of arts performance types occurs across types of facilities (such as when jazz is played in concert halls or art is displayed in churches) and trends in multiple facility use for arts across time is a situation worth monitoring. Beyond these obvious performance-location patterns, then, there are interesting differences and similarities in where different performances are held and that was the purpose of including a specific SPA question on location/facilities of performances in four of the survey months. Suh data were available, then, for about a third of the total sample.

These differences and similarities are shown in Table 4.7 in two formats. The reason for the two formats is that the location/facility questions for all arts performances each respondent attended were combined, rather than recorded separately for each type of performance. Thus, if a respondent went to a jazz performance and to a ballet, it is impossible to determine with which location response in the follow-up facility question it was matched.

Each type of performance, then, could not be matched with the way the location question was asked in the survey. Our hypothetical respondent might have checked "nightclub" and "concert hall", but the analyst cannot say for certain whether it was the jazz performance or the ballet that took place at the nightclub or at the concert hall.

Thus, in the top half of Table 4.7, the data are first arranged on a facility basis. This answers general questions such as, "What proportion of all respondents who mentioned attending a jazz performance also mentioned going to a college facility?" Again, that is not to say that it *was* the jazz performance that took place at the college facility for those 31% of respondents who said "yes" to attending a jazz performance; some of these respondents also said they had attended an arts performance at a college facility (perhaps to see a ballet or a play, if they had also attended these arts performances). Thus, the figures for facilities in Table 4.7a cannot be targeted to specific performances.

The figures in Table 4.7b are more directly tied to specific types of facilities since they include respondents who *only* went to jazz performances, or *only* a ballet. The limitation of Table 4.6b, then, is that it excludes respondents who went to more than one type of arts performance in the previous year (e.g. jazz *and* ballet; or jazz, opera and visual art displays). Moreover, the majority (over 80%) of attendees at one type of performance did mention attending another type of arts activity performance.

Nonetheless, there are clear convergences in the two sets of numbers. Thus, both tables agree that the major facilities and locations across all types of performances/displays are in concert halls (28%), theatres (14%), open-air failities (15%), and college campuses (7%); relatively few live arts performances took place in YMCA's (.1%), libraries (.6%), nightclubs (3.6%), or churches (2.9%).

When cross-tabulated by performance type, the following patterns of type of arts by facility emerged:

1) Jazz performances tend to take place in nightclubs, concert halls and parks--and to a lesser extent college facilities. They rarely take place in museums or in facilites, such as YMCA's, libraries and museums.

2) Classical music performances take place mainly in concert halls. They also frequently take place in educational facilities (colleges, high schools and grade schools) and in nightclubs. Like jazz performances they rarely take place in YMCA's, libraries and museums.

3) To a greater extent than classical music, operas take place in concert halls and theatres. Unlike classical music performances, operas less often take place at educational institutions.

4) Musical stage plays, unlike opera, take place more in theatres than in concert halls and are seen less often in open-air facilities.

5) Non-musical stage plays are also more likely to be seen in theatres and open-air facilities.

6) In contrast, ballet performances are seen more often in concert halls and at high school facilities but rarely in theatres. Ballet is also seen more often in outdoor locations than are musical or non-musical stage productions.

7) Art displays are of course predominantly viewed in galleries or museums, but are also viewed to some extent in concert halls and religious (and YMCA - type) facilities.

Tabulated on the reverse basis (which emphasizes the main types of performance that take place at educational facilities, YMCA's, etc.), certain other patterns appear:

1) College facilities are more frequently a locale for classical and jazz music than for other arts forms.

2) High schools are main performance areas for ballet; and grammar schools, main areas for art exhibits.

3) YMCA's are used more for art displays than for other art forms.

4) Concert halls are used more for ballet and for opera than for other arts forms.

5) Theatres are main types of facilities used for musical and non-musical plays.

6) Nightclubs are not a major locale for most arts performances, outside of jazz performances.

7) To the extent libraries are used, they are mainly a site for classical music performances.

8) Open-air and park facilities are most often used for opera and for jazz performances, and less often for plays, musicals and art exhibits.

In general, then, there is a good deal of "blending" across these types of facilities and types of performances, and this blending may well increase in the years ahead if convenient arts locations become in shorter supply or people are increasingly attracted to arts facilities serving multiple functions.

Table 4.7a: Types of Facilities In Which Arts Performances are Attended: Percent of Attendees (Unweighted) Who Went to Each Type of Location (Includes Multiple Mentions, therefore figures add to more than 100%)

Number of Respondents Attending

n =	(397)	(694)	(137)	(1,033)	(636)	(239)	(1,251)	
	Jazz	Classical	Opera	Musical	Plays	Ballet	Gallery/ Museums	TOTAL
Location								
College facility	31%	33%	29%	24%	33%	32%	19%	7%
Elementary, high school	9	16	13	12	13	16	7	3
Church, other religion	8	18	13	10	12	11	9	3
YMCA, YWCA, etc.	0.3	0.6	0	0.5	0.6	0.4	0.4	0.1
Concert hall, auditorium	51	58	75	47	49	67	37	28
Theatre, dinner theatre	36	30	52	58	62	54	33	14
Nightclub, coffee house	30	42	12	11	14	13	11	4
Library	3	4	.6	2	3	3	2	0.6
Art Gallery/ Museum	16	17	25	13	16	22	14	3
Park, open-air facility	31	23	25	18	19	26	15	5
Other	3	3	2	2	2	3	2	4

* Interpretation: Of the 397 respondents who reported attending a jazz performance, 31% also reported attending some arts performances at a college facility (not necessarily a jazz performance).

Table 4.7b: Types of Facilities In Which Performances are Attended: Percent of Attendees (Weighted) Only At That Type of Performance at Each Location

Location	Jazz	Classical	Opera	Musical	Plays	Ballet	Gallery/ Museums
College facility	12%*	17%	0%	10%	10%	6%	0%
Elementary, high school	2	15	0	7	5	22+	0
Church, other religion	1	10	0	2	6	0	12
YMCA, YWCA, etc.	0	0	0	0	0	0	10
Concert hall, auditorium	29	30	47	21	20	50+	17
Theatre, dinner theatre	10	6	31	47	52	8	0
Nightclub, coffee house	23	3	0	3	3	0	0
Library	1	4	0	x	1	0	0
Art Gallery/ museum	0	0	0	0	0	0	44
Park, open-air facility	20	13	22	8	4	14	7
Other	3	2	0	1	0	0	9
	100%	100%	100%	100%	100%	100%	100%

* Of those respondents who only reported attending a jazz performance, 12% said they attended at a college facility.

x Less than .5%

8) DIFFERENCES IN ATTENDANCE PATTERNS BY DETAILED GEOGRAPHICAL BREAKDOWNS

Chapter 3 presented differences in attendance patterns by the standard breakdown of the country into four geographic regions: Northeast, North Central, West and South. There was a further breakdown of the population into three categories on the SMSA variable within central cities of SMSA's, areas outside of central cities in SMSA's (mainly suburban populations) and non MSA areas.

Because of the strict guarantees of confidentiality observed by the U.S. Bureau of the Census with regard to respondent information, a special set of cross-tabulations and MCA's was prepared using the Census Bureau's computer (to maintain respondent confidentiality). The following 24-category breakdown by geography and urbanicity is used to show both regional and metropolitan differences is:

	Northeast	North Central	West	South
SMSA City	1 New York 3 Philadelphia 5 Boston area 6 Other cities	9 Detroit area 10 Chicago area 11 Other city	14 San Francisco -Bay area 15 L.A. area 16 Other city	19 Balt.-Washington 20 Houston-Dallas 21 Atlanta-Miami-Orlando 22 Other city
SMSA non-city	2 N.Y.suburbs 4 Philadelphia region 7 Other non-city	12 Other non city	17 Other non city	23 Other non city
Non-SMSA	8 Non SMSA in Northeast	13 Non SMSA in North Central	18 Non SMSA in West	24 Non SMSA in South

In order to further preserve respondent confidentiality, sample size information for each category was not provided by the Bureau of the Census, and thus it is impossible to say whether the differences observed in Table 4.8b are statistically significant or not. It also needs to be noted that this national sample was not designed to be representative of respondents in these particular regional areas and may include some unknown bias due to uncontrolled sources of variation for that reason. The MCA controls on the other hand, are intended to adjust for such disparities in types of people who live in these different areas.

Simple unadjusted differences in reported attendance percentages for each type of performance are shown in Table 4.8a. Table 4.8b on the other hand, shows the differences across these 24 geographical regions after adjustment for education, age, sex, income, marital status, number of children, race and work hours.

With regard to jazz performances, it can be seen that after adjustments respondents in the Detroit area reported highest attendances, followed by the San Francisco Bay area, other cities and suburbs in the West, smaller cities in the South, suburbs in the Northeast and New York City. Most of these areas had also shown above average attendance figures prior to adjustment as well. Areas or regions showing lowest attendance at jazz performances were the Philadelphia region, the Baltimore-Washington area, and the non SMSA areas in the West, North Central and South regions. After adjustment, attendance at jazz performances ranged from almost 15% in the Detroit area to under 5 % in the Philadelphia region.

After adjustment for other factors, the proportion of respondents reporting attendance at classical music performances was highest in Boston and in the smaller cities in the West and the Midwest, (consistent with the differences that were apparent before adjustment. Lowest attendance at classical music performances was reported by residents of the Philadelphia region, of the New York City suburbs, of the Baltimore-Washington area and of non SMSA areas in the South. Attendance varied between almost 19% in the smaller cities in the West and just over 7% in the Philadelphia suburbs.

Opera attendance was reported at a considerably higher rate among residents of New York City and in the Houston-Dallas areas than in other parts of the country; it was also above average in the Detroit, Chicago and Baltimore-Washington areas. It was below average in the Philadelphia regions and in the non SMSA areas of the West and South. Attendance percentages ranged between almost 10% in New York City and 7% in Texas cities and the San Francisco Bay area to less than 2% in the Philadelphia region.

The attendance rate at operettas and other musical productions is also far higher for residents of the New York City area than in any of the other areas. It is also higher among residents of the New York City suburbs, the Philadelphia, Detroit, Chicago, Los Angeles, and San Francisco Bay areas, and the Baltimore-Washington area. Attending such musical performances is lowest in the non SMSA areas in the West and South and in smaller Southern cities. Attendance figures vary between 33% in New York City and less than 13% in the non SMSA areas in the West and South.

Rates of attending (non-musical) stage plays is once again highest among residents in New York City and its suburbs, as well as in the Boston area and in smaller cities in the North Central region. It is lowest in smaller cites in the Northeast and in the non-SMSA areas of the West and South -- and in the San Francisco area. Attendance at plays ranges from over 21% in New York City to just over 5% among residents of smaller Northeast cities.

New York City residents also report highest rates of attendance at ballet performances. Residents of the Boston, San Francisco Bay and Baltimore-Washington areas, and people residing in smaller cities in the

Northeast and West also report above average ballet attendance. Below average attendance was reported by residents of Philadelphia suburbs, Detroit, and non SMSA areas in the West and South. Attendance varies between almost 10% in New York City and below 2% in non SMSA areas in the West.

Visiting art galleries and museums is reported at higher rates among residents in such larger cities as New York, Boston, San Francisco, and particularly Baltimore-Washington; it is higher in smaller cities in the Northeast and West as well. It is below average in non SMSA areas in the South and North Central regions, in Southeastern cities (Atlanta, Miami and Orlando) and in Detroit and smaller Northeast cities. Attendance at art museums and galleries varies between 30% in the Baltimore-Washington area and 16% in non SMSA areas in the South.

Differences in proportions reading novels, poetry, short stories and plays are relatively smaller than for the attendance data for live performances. Highest literature reading rates (again adjusted for education and other factors) were reported by respondents in New York City and Boston -- and in all locations in the West outside of San Francisco and Los Angeles. Lowest reading rates were reported in Houston-Dallas-Fort Worth, in the non-SMSA areas in the South, in Northeast suburbs (including Philadelphia regions). Percentages reading novels, short stories, etc. varied from 65% in New York City to 46% in the Texas cities.

Overall, then, the most distinctive area as far as arts participation was concerned was New York City. New York City residents reported very high or above average rates for all arts activities; that was least true for classical music performances. Residents of Detroit reported highest attendance rates at jazz performances, and were above average in attending opera and musicals, but below average in visits to art galleries/museums and ballet attendance. Washington-Baltimore residents were highest in art gallery/museum going, and were also high in rates of attending opera and musicals; but they were below average in rates of attending jazz and classical music performances. Residents of the Boston and San Francisco Bay areas also reported notably above average attendance at certain types of performances (namely jazz, musicals and opera for Bay area residents; classical music, ballet and theatre for Boston; and art galleries/museums in both).

Table 4.8a: Attendance of Arts Events and Reading Literature by Regional-Metropolitan Locations: Percentages of Respondents Reporting Arts Participation Above and Below the Grand Mean

	Jazz	Classical Music	Opera	Musical	Plays	Ballet	Art Gallery/ Museums	Reading
GRAND MEAN:	10%	13%	4%	19%	12%	4%	22%	56%
NORTHEAST								
1 N.Y.C.	12	14	10	33	22	10	27	65
2 N.Y.C. suburbs	11	13	6	28	18	6	24	60
3 Philadelphia area	11	14	5	25	12	4	20	55
4 Phil. regions	16	21	6	18	12	2	20	50
5 Boston area	11	18	4	22	16	6	30	63
6 Other NE, CC*	10	15	5	20	10	5	17	55
7 Other NE, not CC	11	14	4	19	8	5	20	54
8 Other NE, not SMSA	11	15	5	17	12	4	21	60
NORTH CENTRAL								
9 Detroit	14	16	6	26	13	3	21	57
10 Chicago	12	14	6	23	14	4	25	58
11 Other NC,CC	13	17	3	18	16	4	25	58
12 Other NC,not CC	11	16	3	20	11	6	23	63
13 Other NC,not SMSA	6	11	3	14	10	2	17	56
WEST								
14 Bay area	16	14	8	27	13	7	32	64
15 L.A. area	10	12	4	24	15	5	24	59
16 Other West, CC	12	22	5	25	16	6	32	68
17 Other West,not CC	14	18	4	25	16	6	34	66
18 OtherWest,not SMSA	6	15	2	13	10	2	26	65
SOUTH								
19 Balt-Wash area	9	14	7	27	12	8	36	61
20 Texas cities	11	14	7	18	13	5	23	47
21 Flor-Georgia cities								
22 Other South, CC	12	12	5	18	13	5	19	59
23 Other South,nonCC	4	12	3	17	11	6	26	54
24 OtherSouth,notSMSA	9	11	3	14	10	4	22	55

* CC - SMSA city

Table 4.8b: Attendance of Arts Events and Reading Literature by Regional-Metropolitan Locations, Adjusted for Background Factors: Percentages of Respondents Reporting Arts Participation Above and Below the Grand Mean

	Jazz	Classical Music	Opera	Musical	Plays	Ballet	Art Museums	Reading
GRAND MEAN =	10%	13%	4%	19%	12%	4%	22%	56%
NORTHEAST								
1 N.Y.C	11	13	10	33	22	10	27	66
2 N.Y.C. suburbs	8	10	5	25	15	5	20	56
3 Phil.	8	14	3	25	13	4	21	56
4 Phil. suburbs	4	7	2	17	11	2	22	52
5 Boston area	8	17	4	21	15	7	29	61
6 Other NE,CC	12	12	3	23	12	6	20	58
7 Other NE,not CC	8	13	3	17	7	5	18	52
8 Other NE, not SMSA SMSA	10	15	3	18	13	4	21	60
NORTH C[illegible]TRAL								
9 De[illegible]t	15	15	6	24	11	2	19	55
10 C[illegible]ago	11	14	5	22	13	4	24	58
11 Other NC,CC	12	17	3	19	16	4	25	58
12 Other NC,not CC	11	15	3	18	10	5	21	60
13 Other NC,not SMSA	8	13	3	16	12	3	20	58
WEST								
14 Bay area	13	11	7	23	9	6	27	58
15 L.A. area	8	11	4	23	14	5	22	57
16 Other West, CC	14	19	4	22	13	6	29	63
17 Other West,not CC	12	14	4	21	13	4	29	60
18 Other West,notSMSA	7	14	2	12	10	2	25	63
SOUTH								
19 Balt-Wash area	7	10	6	22	13	6	30	57
20 Texas cities	10	14	7	18	14	5	23	48
21 Flor-Georgia								
22 Other South, CC	11	12	5	19	13	5	18	59
23 Other South,notCC	13	12	3	20	11	6	26	54
24 Other South, SMSA	10	12	2	15	11	5	23	55

9) DIFFERENCES IN REPORTED PARTICIPATION BY DETAILED OCCUPATIONAL CATEGORIES: A PRELIMINARY EXPLORATORY ANALYSIS

Occupation was one of the major predictor variables examined in Chapter 3. However, the 12-category occupational code used in Chapter 3 obviously obscures many important variations within these occupational categories. This would seem especially true within the "professional" category, which includes occupations as diverse as doctors and engineers or clergymen and entertainers.

Given this diversity within occupational categories and the unprecedently large sample that made more detailed breakdowns possible, a preliminary study of some of the broader variations in arts participation was conducted using the detailed occupation Census Bureau code employed in this survey. In order to keep this exploratory analysis manageable, the 500+ code categories that the Census Bureau employs to code occupation were recombined at the University of Maryland into 58 rough categories. This includes 58 detailed occupational groups such as farm owners, office secretaries, restaurant managers, etc. plus one residual category for all respondents who were not in the paid labor force; this category thus includes full-time homemakers, students as well as retired and disabled people.

The 58 rough groupings were developed around the following general criteria:

1) Each group should represent a substantial number of respondents -- at least around 1% of the labor force.

2) Each group should combine individuals in adjacent occupational categories in the Census Bureau codes (e.g. chemical engineers with civil engineers, auto mechanics with office machine repairmen, truck drivers with bus drivers) as these are grouped in the 500+ detailed occupation code that the Census Bureau has developed (see Appendix C).

3) Combinations were made only within the existing 12 broad Census Bureau master categories; that is, insurance agents and advertising agents were kept in the same "sales" category, even though our grouping of occupations separated both of these roles personnel from retail sales clerks; sales clerks are another another occupational group in the general sales category of the Census occupation listing as found in Appendix C

The 58 categories that we developed within these guidelines are shown in Table 4.9, along with the Census Bureau occupation codes they include.

Our recoding scheme for the original 500+ occupation categories used by the Census Bureau is also shown in Appendix C. As can be seen in that Appendix, the following kinds of distributions were maintained in this coding scheme:

- Within professionals, there are 17 different categories that range from arts-related professionals (e.g. musicians, artists) to counseling professionals (e.g.social workers, ministers) to engineers to accountants; note that social scientists are kept separate from physical scientists, as are elementary from high school from college teachers; and health technicians from engineering technicians from other kinds of technicians.

- Within the managerial category, administrators and officers are kept separate from managers, and restaurant managers separate from other types of managers.

- Within the sales category, retail sales clerks are kept separate from advertising/insurance/real estate sales workers and from from other types of sales workers.

- Within the clerical category, separate categories are provided for secretaries, for receptionists, for communication workers (e.g. telephone), and for "record-keepers" (e.g. bookkeepers).

- Within the skilled crafts category — auto mechanics, carpenters, plumbers, electricians, etc. — are kept in separate categories, as are all apprentice categories. A separate category was created for "artisans" -- jewelers, decorators, sign painters, etc.

- Within the "operative" semi-skilled blue collar category, precision machine operators are kept separate from textile workers and from transportation workers, such as cab drivers, truck drivers or other transport workers.

- Farm laborers are kept separate from farm owners.

- With regard to service workers, eight different categories are distinguished: 1) waiters; 2) protective (police, army, etc.); 3) health aides; 4) other food workers (dishwashers, etc.); 5) attendants with minimal training (such as bootblacks or elevator operators); 6) private houshold; 7) cleaning; 8) "personalized service attendance". In this last category we have included cooks, bartenders, practical nurses, airline stewardesses, hairdressers, etc., or those employed in service work that seems to involve a greater amount of specialized and skilled service.

A final category (code 58) includes workers not classified into any of the above categories.

Arts participation was measured in terms of the straightforward index of how many of the seven types of arts events the respondent attended. A respondent who went to an opera and to a stage play would obtain a score of two. Possible scores on the index rannge from zero (which was the score obtained by 60% of respondents) to seven (if the respondent attended all seven types of arts performances). As noted at the top of Table 4.9, the overall average number of performance types attended was less than one (0.83 to be more precise).

In the first column, it can be seen that prior to adjustment for education, index scores across occupations vary between 2.72 for college teachers and .11 for operative workers in textile manufacturing. Within each of the major occupational categories, some further notable differences are found, before adjustment for other factors.

- Professionals show the most interval variation; index scores range from 2.72 for college teachers, 2.51 for social scientists and 2.42 lawyers/judges at the top, down through to the engineering technicians (1.03) and to engineers (1.37).

- Administrators (1.68) were higher on the index than managers (1.22), and especially restaurant managers (.68).

- More specialized sales workers (in real estage, insurance or advertising) were higher on the index (1.68) than other sales workers, especially retail sales clerks (.88).

- Secretaries were higher (1.17) than other clerical workers on the index, especially those in clerical jobs involving communication, such as messengers (.63).

- While most skilled workers were in the .50 range on the index, those who were in the artisan category (e.g. decorators, jewelers) were at 1.64 on the index.

- While most semi-skilled operative workers score in the .30 to .40 range on the index, textile operators were at .11.

- Only two service worker categories (household and cleaning personnel) were as low as workers in lower blue collar occupations. Most service workers fall in the .70 to .90 range, with the score rising to 1.49 for those service workers providing more personalized service, such as hairdressers or bartenders.

In general, then, there are important wide variations in attendance patterns within the broad occupational categories in Chapter 3. These need to be considered in assessing the role occupation plays in arts participation.

Not all of these differences remain after controlling for the respondent's education, as shown in the second column in Table 4.9. After both factors are controlled simultaneously, the overall differences in arts paticipation explained by occupation drops by almost 75%, while that for education drops only by about 10%. The larger differences by occupaion after MCA control can be described as follows:

	Professional	Other White Collar	Blue Collar	Service Workers
Very high (over 1.50)	Arts-related College teachers Social scientists	--	Artisans	--
High	Lawyers	Advertising/ Insurance Other clerical	--	Personalized attendants, Waiters
Low	Engineers Technicians	--	--	--

In other words, most of the variation in blue collar and service categories is eliminated after controlling for education, with no such groups being less than about .50 on the index after control. Engineers and engineering technicians are markedly lower than other professionals, especially academics in the arts and humanities and social sciences -- and college teachers in general. Engineers appear more similar to blue collar workers than to other professionals in terms of their arts participation.

Table 4.9: Overall Attendance at Arts Events by Detailed Occupational Codes

Grand Mean	0.83	0.83

OCCUPATION: (See text and Appendix C)

	UNADJUSTED	ADJUSTED
Professional		
Arts-Related	2.13	1.69
College Teachers	2.72	1.73
Librarians	1.79	1.02
Physician or Scientist	1.92	1.06
Social Scientists	2.51	1.61
Lawyers, Judges	2.42	1.43
Physicians	2.06	1.02
Secondary School Teachers	2.05	1.16
Primary School Teachers	2.04	1.19
Counseling	1.77	1.12
Nurses	1.48	1.01
Computer Specialists	1.62	1.06
Engineers	1.38	.72
Health Technician	1.44	.96
Engineering Technician	1.03	.79
Other Technicians	1.62	.94
Managerial		
Accountants	1.41	1.00
Administrators	1.64	1.06
Managers	1.22	1.00
Restaurant Managers	.68	.64
Sales/Clerical		
Advertising	1.68	1.23
Other Sales	1.29	1.06
Sales Clerk Retail	.88	.87
Supervisors	1.25	1.08
Public Contact	.82	.81
Secretarial	1.17	1.12
Communication	.63	.64
Record Keepers	.91	.89
Machine Operators	.91	.93
Other Clerical	1.23	1.12
Skilled		
Artisans	1.64	1.50
Foreman	.53	.63
Carpenters	.49	.67
Painters	.45	.55

Electricians	.67	.69
Plumbers	.39	.50
Auto Mechanics	.39	.61
Other Mechanics	.50	.58
Semi-Skilled (Operative)		
Apprentices	.39	.57
Precision	.36	.61
Textile	.11	.49
Other Operatives	.34	.63
Cab Drivers	.42	.66
Truck Drivers	.32	.58
Other Transport	.34	.53
Other Laborers	.46	.63
Farm		
Farmers	.38	.48
Farm Labor	.42	.65
Service		
Waiters	.90	.99
Protective	.62	1.14
Health Aides	.68	.72
Other Food Related	.68	.86
Private Household	.28	.65
Attendants	.74	1.40
Cleaning	.41	.68
Personalized Attendants	1.46	.87
All Other Occupations	.87	.58
Non-Labor Force	.55	.78

10) DIFFERENCES IN ARTS PARTICIPATION BY OTHER BACKGROUND FACTORS

The larger Census Bureau Survey collects background information from respondents on a wide variety of topics. Chapter 3 has examined the eleven factors that seemed most relevant to arts participation, such as education, age, family composition, etc.. In this chapter, we have so far examined several other factors: month of survey, geography, and occupation.

This section examines eight additional background variables in the Census Bureau Survey for which variation in arts participation can be examined. Most of these have to do with characteristics of the dwelling unit in which the respondent resides: What is the number of adults living in the household? Is the household a single-family dwelling unit (house) that stands alone, or (if not) is it a duplex , row house or part of an apartment complex? Is it a mobile home? Is it being rented or bought?

Other questions ask about household possessions related to the dwelling unit, such as automobiles or telephones. Information is also available on the size of the municipal unit (not the larger metropolitan area) in which the respondent lives: Do the boundaries of that municipal unit include over a million people or less than 200? Most SMSA areas included several municipal units of varying size. One municipal unit (surburban areas) ringing a city may have upwards of 100,000 people; it may be adjacent to a second municipal unit that has a size of place of less than 100 people. These were not separated in the SMSA code used in Chapter 3.

Other factors include whether the respondent is a member of the armed forces or not, or whether the interview was conducted over the phone or in person.

Table 4.10 examines variation in the index of participation in the seven core activities by these ten factors -- both before adjustment (Table 4.10a) and after adjustment for five major factors (age, education, ethnic-racial group, income and urbanicity) in Table 4.10b. The adjusted figures in Table 4.10b reveal the following patterns:

> Household Type: Arts attendance is slightly higher overall among residents of multiple family units (mainly apartments) than among residents of "detached single-family units" (i.e. houses) and in mobile homes than in multiple family units. And there is some tendency for overall attendance to be higher in progressively larger apartment buildings: from .88 in two-unit structures to .98 in three-unit structures to 1.06 and 1.00 in four-unit and five-unit apartment buildings, all the way up to 1.20 for apartment buildings with more than 10 units. These pattern differences in Table 4.10 once again hold after control for age, income, education, and urban-rural differences between house and apartment dwellers. Such a systematic and regular pattern suggests a role that attending arts performances may play in allowing residents of larger apartments to "get away" from their more uniform residences to attend culture in more spacious surroundings. (There are too few respondents living in transient hotels, rooming houses, etc. to suggest whether living in these types of facilities relate to participation.)
>
> Household Tenure: Individuals who own or are buying their homes attend arts events at about a 10% higher rate on the index than people who rent. This difference again holds after control for income and type of household, so it is not simply a result of renters having lower income or living in larger apartment buildings.
>
> Automobile Ownership: Ownership of automobiles appears to have no direct or systematic relation to attending arts performances, after adjustment for other factors.
>
> Telephone Ownership: Respondents who had no telephone in their housing unit reported above a 20% lower participation rate than respondents who had a telephone in their housing unit. Thus, telephone ownership seems a more important factor in higher arts attendance rates than car ownership.
>
> Household Size: Respondents living in households with more adults (over age 18) report lower participation than those with fewer adults in the household. After adjustment, the pattern in index scores are as follows: one adult only (1.15), two to four adults in the household (.78), five-six adults (.64), seven or more adults (.45). It would appear therefore that having more adults in the household is an inhibiting factor on arts participation -- other things being equal. Similarly, if one is a child or relative in a housing unit one is less likely to be an arts attender. However, if one is a non-relative in the household, one is more likely to participate in arts events — perhaps providing an opportunity to spend time in a more

spacious environment.

Interview Mode: Respondents interviewed by telephone indicated they attended more arts performances than those interviewed in person, but that difference was insignificant after control for other factors. (People interviewed by phone were also not at home during the times of the in-home interview, indicating they simply were more likely to be away from home for other acitvities besides the arts; this is again consistent with the "more-more" principle.)

Place Size: In general the larger the place, the greater the attendance rates, going from an index score of 1.04 for respondents living in communities of one million or more inhabitants to .53 for those (few) respondents who lived in communities of less than 200 inhabitants. A slightly below average index score (.76) was found for respondents living in unincorporated areas with no central population. It is important to note once again, however, that place size refers to the local municipal area and not to the metropolitan hub to which it may be attached. In other words, a small city of 30,000 residents that stands alone in the middle of a rural area is in the same category as a suburb of 30,000 which is part of a large city like New York or San Francisco (which is what is reflected in the 3-category SMSA variable employed in the Chapter 3 analysis).

Armed Forces: After control for other factors, members of the armed forces are about 10% less likely to attend arts performances than members of the civilian population.

In general, then, certain of these "minority groups" of individuals (apartment dwellers, non-relatives, telephone non-owners, renters, residents of larger areas, armed force members) show patterns of arts participation that deviate above or below the average participation rates for other individuals in SPA'82 and these differences deserve further explanation and analysis. They suggest some potentially important theoretical and practical factors that seem to enhance or to constrain arts attendance.

Table 4.10a: Differences in Arts Participation by Other Backgound Factors (Before Adjustment)

GRAND MEAN = .83

	Unadjusted
Telephone in housing unit	
Yes, in the unit	.85
Yes, outside unit	.58
No phone connection	.31
Automobiles	
None	.83
One	.79
Two	.82
Three	.80
Four or more	.83
Housing Units in Building	
One, single-family	.80
Two	.90
Three	.82
Four	1.04
Five to nine	1.02
Ten or more	1.32
Mobile home, trailer	.25
Only other units	1.55
Type of Dwelling Unit	
House,apt,flat	.85
Non-transient hotel	.82
Perm hous tr hotel	.48
Rooming house unit	1.70
Mobile home, trailer	.36
Other housing unit	.98
Type of Interview	
Personal	.81
Telephone	.89
Armed Forces Member	
Yes	.93
No	.88
Not ascertained	.49

	Unadjusted
Relative	
Reference person	-.01
Spouse of ref person	.02
Own child	-.06
Other relative	-.35
Nonrelative	.50
Number of Adults Over 18 Years of Age	
One	1.01
Two	.82
Three	.78
Four	.76
Five	.55
Six or more	.30
Population	
Under 200	.39
200 to 499	.50
500 to 999	.62
1,000 to 1,499	.48
1,500 to 1,999	.35
2,000 to 2,499	.45
2,500 to 4,999	.64
5,000 to 9,999	.77
10,000 to 19,999	.89
20,000 to 24,999	.81
25,000 to 49,999	.96
50,000 to 99,999	1.08
100,000 to 249,999	.81
250,000 to 499,999	1.14
500,000 to 999,999	.99
1,000,000 or more	1.14
Unincorporated area	.91

Table 4.10b: Differences in Arts Participation by Other Backgound Factors (After Adjustment for Background Factors)*

GRAND MEAN = .83

	Unadjusted
Telephone in housing unit	
Yes, in the unit	.84
Yes, outside unit	.82
No phone connection	.66
Automobiles	
None	.83
One	.85
Two	.82
Three	.81
Four or more	.83
Housing Units in Building	
One, single-family	.79
Two	.88
Three	.96
Four	1.04
Five to nine	.98
Ten or more	1.18
Mobile home, trailer	.71
Only other units	.97
Type of Dwelling Unit	
House,apt,flat	.83
Non-transient hotel	.86
Perm hous tr hotel	.52
Rooming house unit	1.50
Mobile home, trailer	.69
Other housing unit	.90
Type of Interview	
Personal	.82
Telephone	.85
Armed Forces Member	
Yes	.74
No	.84
Not ascertained	.74

	Unadjusted
Relative	
Reference person	-.01
Spouse of ref person	.02
Own child	-.06
Other relative	-.35
Nonrelative	.50
Number Over 18 Years	
One	1.15
Two	.78
Three	.80
Four	.77
Five	.61
Six	.66
Seven	.51
Eight	.65
Nine or more	.13
Population	
Under 200	.53
200 to 499	.62
500 to 999	.75
1,000 to 1,499	.67
1,500 to 1,999	.63
2,000 to 2,499	.69
2,500 to 4,999	.75
5,000 to 9,999	.84
10,000 to 19,999	.90
20,000 to 24,999	.77
25,000 to 49,999	.92
50,000 to 99,999	.89
100,000 to 249,999	.74
250,000 to 499,999	.96
500,000 to 999,999	.89
1,000,000 or more	1.04
Unincorporated area	.76

* The background factors are age, education, ethnic-racial group, income, and urbanicity.

Chapter 5

OTHER CULTURAL AND LEISURE ACTIVITIES

Specific types of arts participation are often thought to reflect a particular type of life-style. It is easier to visualize a "cultured" opera attender, for example, as fixing a gourmet meal rather than as fixing an automobile carburetor. If such stereotypes have any basis in fact, then, arts participation constitutes but one element in a person's overall style of life. The SPA'82 study included a series of questions on recreational and leisure-time activities, other than participation in the art forms discussed in Chapter 3. The objectives of these questions were (1) to compare the rates of participation in these other leisure activities with arts participation and (2) to classify the general life-styles of each respondent in terms of responses to these questions.

This chapter examines these questions and the tabulations of respondents' answers to them, aggregated for the months in which they were included in the survey. Further analysis of this information will address the following questions:

1) What is the extent of the public's involvement in these various recreational activities? The percentage of the population involved in each recreational activity can be estimated from the distribution of responses in the sample.

2) How do recreational activities differ among groups with different backgrounds? For example, what population groups are most likely to be involved in production work for plays, what groups are likely to be involved in gardening?

3) What are the most important factors in explaining differences in recreational activities? If respondents

from households with higher incomes are more likely to visit arts and crafts fairs, for example. is this tendency attributable to income differences or to the impact of other associated factors such as education?

4) Do recreational activities form clusters in terms of of an overall "life-style" of activity combinations? Is a person who pursues one type of activity (e.g. camping) more or less likely to pursue a second and third activity (e.g., movie-going and jogging)?

5) How does involvement in recreational activities differ by background factors? What are the social characteristics of people who tend to be more fully engaged in cultural, intellectual or aesthetic activity or in various activities at home?
Are the best predictors of wider involvement also the most important explanatory factors?

6) How do various life-styles incorporate participation in the arts? Are certain recreational activities associated with arts participation, or does involvement in particular sets of recreational activities increase or decrease the likelihood of participation in the arts?

1) RECREATIONAL ACTIVITY QUESTIONS AND RESPONSES

In addition to the 10 core questions on arts participation discussed in Chapter 3, respondents in certain months of the survey were asked whether they were active in a variety of general leisure activities. These questions were all framed in terms of any involvement during the previous 12 months. One set of 14 questions (questions 23a-23n that were included in the March, September, and November surveys) asks about a wide range of general recreational activities:

- Attendance at movies, sports events, zoos or gardens, amusement parks
- Hobbies: games (card, electronic), collecting (e.g., stamps), preparing special meals, gardening
- Physical activities: exercise, sports, or outdoor recreation (e.g. camping)
- Reading (includes more general reading than reading of literature which is one of the core questions in Chapter 3)
- Volunteer work
- Home or vehicle repair

A second set of 12 questions (questions 24-35 asked in the May, November, and December surveys) concern more cultural activities: visits to non-art museums and historical sites as well as various arts and crafts activities:

- Visit to a (non-art) museum, to a historic site, or to an arts or crafts fair
- Read or listen to poetry
- Lessons in the arts
- Craft activities (including jewelry and sewing)
- Artistic activities (including photography)
- Nonperforming work for live arts performances
- Creative writing

The exact wording of these recreational activity questions, can be examined in Table 5.1.

Table 5.1 also shows the number of survey respondents who reported participating in each of these recreational activities. For instance, of the 5,571 respondents questioned in four survey months, 3,484 said they had gone to a movie, while 2,076 said they had not. The remaining 11 respondents did not give codeable responses. Note that the size of the sample is smaller (n = 4,255) for the second set of questions (24-35), which were asked during only three of the survey months.

Table 5.1: Numbers of Respondents Reporting Participation in Recreation Life-style Activities

RECREATION LIFE STYLE

23a. During the LAST 12 MONTHS, did YOU go out to the movies?
0☐ No 2076
1☐ Yes 3484
NA = 11

b. Did you go to any sports events at all? Include both professional and amateur sports events, regardless of whether an admission fee was charged.
0☐ No 2879
1☐ Yes 2675
17

c. Did you visit a zoo, arboretum, or botanical garden?
0☐ No 3766
1☐ Yes 1776
29

d. Did you play card games, board games, electronic games, pinball, or any other similar games?
0☐ No 1430
1☐ Yes 3621
30

e. During the LAST 12 MONTHS, did you go to an amusement or theme park, a carnival, or a similar place of entertainment?
0☐ No 2815
1☐ Yes 2739
17

f. Did you jog, lift weights, walk, or participate in any other exercise program?
0☐ No 2693
1☐ Yes 2858
20

g. Did you participate in any sports activity, such as softball, basketball, golf, bowling, skiing, tennis, or the like?
0☐ No 3372
1☐ Yes 2182
17

h. Did you do any camping, hiking, canoeing, or any other similar outdoor activity?
0☐ No 3532
1☐ Yes 2032
16

i. During the LAST 12 MONTHS, did you read books or magazines?
0☐ No 873
1☐ Yes 4681
17

j. Did you do volunteer or charity work?
0☐ No 3987
1☐ Yes 1562
22

k. Did you work on a collection such as stamps, coins, shells, or the like?
0☐ No 4721
1☐ Yes 835
15

l. Did you prepare special gourmet meals for the pleasure of doing it?
0☐ No 3928
1☐ Yes 1622
21

m. Did you make repairs or improvements on your own home or motor vehicles?
0☐ No 2245
1☐ Yes 3305
21

n. Did you work with indoor plants or do any gardening for pleasure?
0☐ No 2174
3384
13

OTHER PARTICIPATION

24. During the LAST 12 MONTHS, did you visit a science museum, natural history museum, or the like?
0☐ No 3270
1☐ Yes 971
14

25. (During the LAST 12 MONTHS,) Did you visit an historic park or monument, or tour buildings, or neighborhoods for their historic or design value?
0☐ No 2671
1☐ Yes 1571
13

26. (During the LAST 12 MONTHS,) Did you read, or listen to a reading, of poetry?
0☐ No 3396
1☐ Yes 846
13

27. (During the LAST 12 MONTHS,) Did you visit an art or craft fair or festival?
0☐ No 2577
1☐ Yes 1666
12

28. (During the LAST 12 MONTHS,) Did you take lessons or a class in literature, creative writing, art, photography, craft arts, ballet, music, or the like?
0☐ No 3790
1☐ Yes 453
12

29. (During the LAST 12 MONTHS,) Did you work with pottery, ceramics, jewelry, or do any leatherwork, metalwork, or similar crafts?
0☐ No 3709
1☐ Yes 535
11

30. During the LAST 12 MONTHS, did you do any weaving, crocheting, quilting, needlepoint, sewing, or similar crafts?
0☐ No 2836
1☐ Yes 1406
11

31. (During the LAST 12 MONTHS,) Did you do any work in a musical or non-musical play, an opera, or a ballet production? Include working on lights, sets, costumes, promotion, etc., but not performing.
0☐ No 4123
1☐ Yes 119
13

32. (During the LAST 12 MONTHS,) Did you do any work in a jazz or classical music performance? Include working on lights, sets, promotion, etc., but not performing.
0☐ No 4197
1☐ Yes 45
13

33. (During the LAST 12 MONTHS,) Did you work on any creative writings such as stories, poems, plays, and the like? Exclude any writing done as part of a course requirement.
0☐ No 3968
1☐ Yes 274
13

34. (During the LAST 12 MONTHS,) Did you make photographs, movies, or video tapes as an artistic activity?
0☐ No 3810
1☐ Yes 430
15

35. (During the LAST 12 MONTHS,) Did you do any painting, drawing, sculpture, or printmaking activities?
0☐ No 3826
1☐ Yes 417
12

2) POPULATION ESTIMATES OF INVOLVEMENT IN RECREATIONAL ACTIVITIES

After weighting to correct for any disproportionate representation in the sample by age, sex, or race, the responses shown in Table 5.1 can be generalized to population estimates. These estimates, expressed in terms of percentages and numbers, are found in Tables 5.2a and 5.2b. The estimates represent the portion of the U.S. adult population involved in various recreational activities.

As shown in Table 5.2a, the levels of participation vary greatly for different recreational activities. A majority participates in certain activities such as movies, while only a small percentage participates in other activities such as creative writing. The highest levels of participation (approximately 60-80%) were found for reading books and magazines, playing games, going to the movies, gardening, and making home or vehicle repairs. Roughly half of the respondents reported exercising, attending a sports event, or going to an amusement park. Roughly a third to two-fifths claimed to have played sports, visited an arts or crafts fair, engaged in an outdoor activity (e.g., hiking), visited historical sites, engaged in needle crafts or visited a zoo or garden. About a quarter to a fifth of the respondents reported doing volunteer work, preparing gourmet meals, visiting a non-art museum, or reading or listening to poetry, while ten to fifteen percent said that they worked on collections, engaged in crafts such as pottery, took art lessons or classes, made photographs or movies, or engaged in arts activities such as drawing. Finally, less than ten percent of the respondents reported being involved in creative writing or working in a nonperformance capacity for an arts event.

The distribution of responses in the sample--after weighting for age,

Table 5.2a: Participation in Various Recreational Activities: Weighted Percentage Estimates of Adult Participation in 12 Months

23 a)	Go to movies	63%
b)	Go to sports events	48
c)	Visit zoos, arboretums, gardens	32
d)	Play cards/board/et al. games	65
e)	Go to amusement park, carnival	49
f)	Jog, lift weights, exercise	51
g)	Sports activities (softball, golf, etc.)	39
h)	Camping, hiking, canoeing, etc.	36
i)	Read books or magazines	84
j)	Do volunteer or charity work	28
k)	Work on collections (stamps, coins, etc.)	15
l)	Prepare special gourmet meals	29
m)	Make repairs or improvements	60
n)	Work with indoor plants, gardening	60
24.	Visit science, etc. museums	23
25.	Visit historic parks, etc.	37
26.	Read/listen to poetry	20
27.	Visit arts/craft fair	39
28.	Lessons in literature, etc.	11
29.	Work with pottery, etc.	12
30.	Weaving, crocheting, etc.	32
31.	Work for theatre/ballet/opera production	3
32.	Work for jazz/classical music concert	1
33.	Work on creative writing	7
34.	Make photographs, movies, etc.	11
35.	Painting, drawing, sculpture	10

sex, and race--can be generalized to provide population estimates of the number of Americans involved in each activity. These estimates are presented in Table 5.2b.

Table 5.2b: Weighted Population Estimates of U.S. Adults Engaged in Selected Recreational Activities in 12 Months (in millions)

23 a)	Go to movies	104
b)	Go to sports events	80
c)	Visit zoos, arboretums, gardens	53
d)	Play cards/board/et al. games	107
e)	Go to amusement park, carnival	81
f)	Jog, lift weights, exercise	84
g)	Sports activities (softball, golf, etc.)	65
h)	Camping, hiking, canoeing, etc.	60
i)	Read books or magazines	138
j)	Do volunteer or charity work	46
k)	Work on collections (stamps, coins, etc.)	25
l)	Prepare special gourmet meals	47
m)	Make repairs or improvements	98
n)	Work with indoor plants, gardening	99
24.	Visit non-art museums	38
25.	Visit historic parks, etc.	61
26.	Read/listen to poetry	33
27.	Visit arts/crafts fair	65
28.	Lessons in literature, etc.	18
29.	Work with pottery, etc.	20
30.	Weaving, crocheting, etc.	53
31.	Work for play/musical/opera/ballet production	5
32.	Work for jazz/classical music concert	2
33.	Work on creative writing	11
34.	Make photographs, movies, video tapes	17
35.	Painting, drawing, sculpturing, printmaking	16

3) BACKGROUND DIFFERENCES IN RECREATIONAL ACTIVITIES

People with different demographic characteristics tend to engage in different recreational and leisure-time activities. Tables 5.3a, 5.3b and 5.3c presents the rates of participation in each recreational activity for different sub-groups. These rates are presented in terms of their difference from the average grand mean for the whole sample.

Thus, over 65% of the population went to a movie in the last year. But for those in households earning under $10,000, only 39% (65%-26%) had gone to a movie, a rate considerably below the average for that activity. In contrast, in households earning $50,000 or more, 86% (65% + 21%) had gone to a movie, considerably above the average.

Tables 5.4a, 5.4b and 5.4c present the same data after adjustment for the impact of the other demographic factors listed in the table. In this case, a comparison of income categories shows an estimated 55% (65% - 10%) of those in households earning under $10,000, and 77% (65% + 12%) in the $50,000 and over group attending a movie -- if the impact of other associated variables is statistically adjusted. Thus, at least part of the difference between the low and high income groups can be attributed to factors other than income, e.g. education.

A brief description of the influence of various demographic factors on each recreational activity, both before and after adjustment for other background variables is given below. Unless otherwise indicated, the trends after adjustment remain largely unchanged.

GENERAL LEISURE ACTIVITIES

Attending Movies

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Table 5.3a: General Recreational Activities by Selected Background Factors: Unadjusted Percentages of Respondents Above or Below Overall Participation Levels

	Go out to Movie	Go to Sports Event	Visit Zoo Garden	Play Card, Games	Go to Amuse. Parks	Jog Exercise	Play Sports	Camping Hiking,	Read Books, Mags.	Volunteer Charity Work	Collect Stamps, Coins, etc	Gourmet Meals	Home Car Repairs	Plants Garden
TOTAL SAMPLE:	63%	48%	32%	65%	49%	51%	39%	36%	84%	20%	15%	29%	60%	60%
Household Income:														
Under $10,000	-25.7	-22.1	-17.8	-20.5	-18.9	-13.4	-14.4	-16.1	-19.7	-6.6	-3.0	-9.1	-24.8	-12.4
$10,000 - $14,999	-19.1	-18.8	-12.9	-13.9	-16.7	-14.6	-15.7	-11.4	-11.5	-9.0	-7.3	-4.3	-16.1	-6.4
$15,000 - $19,999	-1.9	-4.4	-3.8	-2.7	1.9	-3.1	-6.0	-4.9	-1.6	-3.9	2.0	-3.3	-2.2	1.2
$20,000 - $29,999	4.6	3.3	3.3	4.1	7.6	2.7	2.2	5.8	2.5	1.0	2.3	1.9	7.0	3.9
$30,000 - $49,999	15.5	16.3	13.9	12.5	9.8	14.9	13.3	11.3	10.5	8.5	3.0	4.5	15.7	9.4
$50,000 and over	21.2	33.8	16.6	17.1	4.5	15.6	26.4	6.2	13.7	15.4	1.3	17.9	10.2	9.3
Not ascertained	-2.0	-7.1	-8.5	-5.5	-1.4	-6.2	-2.5	-3.4	-0.1	-4.2	-4.0	3.2	-7.6	-5.5
SMSA														
Cent City Of SMSA	1.5	-1.6	4.6	-1.8	-2.8	1.0	1.6	-6.0	-0.4	-1.1	-0.1	2.0	-4.5	-5.6
SMSA, Not Cent City	8.0	5.7	4.3	5.7	2.8	5.6	6.3	3.6	4.3	1.0	0.2	2.9	5.3	4.0
Not In SMSA	-10.2	-5.3	-8.2	-5.2	-2.0	-4.4	-8.3	0.4	-5.0	-0.3	-0.2	-4.9	-3.6	-1.0
Age:														
18-24	24.5	14.8	[illegible]	[illegible]	18.4	18.8	26.6	15.4	5.9	-5.0	6.9	2.7	7.5	-13.0
25-34	18.6	12.3	15.2	16.0	16.4	13.0	15.4	11.9	7.5	0.4	5.1	2.2	11.7	4.5
35-44	5.2	8.9	6.5	5.6	7.3	2.7	4.2	8.4	2.1	6.2	-3.8	4.5	8.1	8.5
45-54	-5.1	-0.1	-5.0	-7.0	-7.4	-8.4	-8.0	-6.1	-1.0	3.1	-3.1	1.2	3.2	1.6
55-64	-21.8	-16.1	-9.9	-23.4	-17.4	-14.7	-20.7	-13.1	-5.6	1.4	-3.5	-4.0	-7.0	1.5
65-74	-34.4	-26.1	-18.8	-24.0	-29.9	-18.4	-37.6	-24.9	-10.5	-2.8	-5.1	-3.6	-21.9	3.6
75-96	-46.1	-42.9	-27.8	-36.8	-40.4	-31.5	-38.9	[illegible]	-20.6	-12.8	-9.1	-16.4	-43.4	-5.5
Marital Status:														
Married	-2.0	0.3	2.1	-1.6	1.7	-2.2	-2.8	2.6	0.5	3.9	-0.4	0.3	6.1	5.9
Widowed	-33.2	-31.0	-20.8	-28.2	-30.8	-25.5	-33.9	-28.2	-11.0	-5.1	-6.1	-7.5	-34.5	-0.3
Divorced	4.3	-1.1	5.8	-1.1	2.8	4.6	-4.7	-5.9	0.9	-6.4	-3.1	11.1	-8.1	9.9
Separated	-2.5	-7.3	[illegible]	-7.8	-4.9	-3.5	-2.2	-9.3	-8.4	-11.4	-7.8	-9.9	-18.9	-19.4
Never Married	19.7	13.6	0.2	14.3	9.4	16.4	20.5	9.7	4.6	-4.0	6.7	-1.6	-1.5	-17.9
Ethnic/Racial:														
White Other Origin	2.5	2.5	2.3	5.9	3.7	3.4	4.8	7.4	2.2	1.3	2.7	0.0	3.4	4.3
British Isles White	3.0	3.8	1.1	-0.3	-5.9	2.4	-0.9	2.7	4.3	3.1	1.2	-3.3	1.7	-2.1
W. Europe White	1.8	6.9	-0.2	3.2	4.6	0.1	2.5	0.3	4.7	3.3	0.1	5.0	7.6	5.8
E. Europe White	2.3	-9.5	1.9	-5.7	-5.9	-1.6	-2.5	-9.5	1.2	-3.7	5.5	15.4	4.0	3.7
Hispanic	4.8	-6.9	-0.3	-15.0	4.4	-12.9	-8.3	-15.7	-12.6	-6.4	-0.2	-2.4	-9.2	-20.0
Black	-18.7	-14.0	-12.4	-16.6	-14.7	-9.0	-11.0	-26.3	-13.9	-9.6	-9.4	-8.5	-17.0	-14.3
Other Races	4.0	-15.9	6.7	-7.0	-2.5	-8.7	-9.9	-13.3	-4.2	-4.8	-1.0	15.9	-19.1	-2.0
White (unknown Origin)	-12.8	-1.1	-8.4	-8.0	0.2	-9.5	-10.0	1.1	-1.5	-2.2	-7.4	-11.7	-10.8	-12.9
Sex:														
Male	3.6	7.7	-1.7	2.4	1.6	2.9	9.2	7.7	-2.9	-2.6	0.1	-8.3	14.3	-11.7
Female	-2.2	-6.8	1.6	-2.1	-1.5	-2.6	-8.0	-6.8	2.7	1.4	-0.1	7.2	-12.5	9.3
Education:														
Grade school	-40.2	-34.9	-22.7	-38.3	-28.8	-31.9	-33.3	-25.7	-32.1	-14.1	-11.7	-16.7	-28.6	-15.3
Some high school	-22.4	-21.9	-17.6	-14.4	-14.9	-19.1	-20.2	-14.2	-15.9	-12.7	-9.5	-14.8	-22.7	-9.5
High school graduate	2.8	0.5	-3.7	5.9	5.6	-1.7	-1.8	2.6	3.9	-2.3	0.5	2.4	2.5	1.8
Some college	15.1	15.3	11.8	12.8	9.9	13.8	17.6	11.2	10.0	5.9	4.5	2.6	10.5	4.5
College graduate	20.0	25.7	19.8	14.4	11.9	22.2	23.9	8.7	13.5	14.6	7.5	12.3	13.4	8.7
Graduate school	24.4	17.5	26.1	13.8	9.0	24.4	20.1	12.2	14.4	25.6	9.9	12.3	17.5	10.8
Workweek Hours:														
None	-14.7	-13.9	-6.5	-8.5	-9.3	-7.1	-13.9	-9.4	-6.8	-1.2	-2.6	-1.7	-14.1	2.0
1 to 29 hrs.	10.1	6.3	2.1	8.2	7.8	9.7	8.5	7.4	4.6	6.0	3.8	3.2	5.0	5.2
30 to 39 hrs.	11.3	6.9	1.9	3.1	8.3	7.0	7.7	2.7	6.6	-5.8	-2.7	4.1	7.1	2.2
40 hrs	8.3	7.3	4.5	4.0	6.1	2.0	7.9	5.3	2.1	-2.1	1.9	-1.1	9.9	-2.1
41 to 49 hrs	10.3	9.5	6.3	9.4	5.8	4.7	13.3	7.5	4.1	3.7	1.0	-6.5	12.0	-7.6
50 or more	12.7	18.5	8.8	9.5	6.0	8.5	16.8	13.0	5.5	6.3	2.6	1.4	18.3	-7.5
Occupation:														
Professional	21.4	19.9	21.5	15.5	13.9	23.7	21.6	11.3	13.8	18.9	4.4	6.7	19.9	7.2
Managerial	14.2	16.5	8.3	7.8	3.4	7.2	15.2	10.8	9.5	7.7	1.9	8.0	15.3	2.7
Sales, Clerical	16.0	15.7	8.2	11.3	11.3	12.3	13.7	7.5	9.4	0.1	5.1	7.2	6.9	8.3
Craftsman	3.1	4.9	-2.1	3.4	-1.5	-7.6	7.8	16.7	-1.1	-5.7	2.3	-8.8	24.7	-12.3
Operatives	-2.0	-4.1	-7.6	-4.1	0.4	-13.6	-6.1	-0.4	-9.9	-12.9	-6.4	-7.4	1.0	-13.7
Laborers	-4.0	2.5	-12.1	-0.0	4.9	-5.6	3.4	3.4	-10.0	-7.7	-3.9	-18.7	13.5	-19.7
Service Workers	6.7	0.1	-3.4	-0.2	5.8	2.5	5.0	2.4	0.6	-1.9	-2.7	1.9	-1.6	-3.8
Not Working	-4.5	-5.2	-3.5	2.1	-1.9	0.0	1.1	-1.4	-5.1	-3.9	2.2	-4.5	-5.8	-8.7
Keeping House	-20.7	-20.1	-7.0	-13.6	-12.0	-14.8	-23.5	-16.1	-5.8	0.2	-4.5	4.3	-23.4	9.4
Student	20.3	33.7	8.7	20.9	16.2	30.0	30.6	18.0	13.7	-2.1	12.7	-4.5	4.0	-15.8
Retired	-32.9	-21.8	-16.0	-25.0	-26.2	-13.5	-26.7	-18.3	-15.9	-7.5	-5.7	-13.3	-15.0	-3.1
Presence of Children:														
No Children	-3.3	-2.3	-5.3	-4.2	-7.9	-1.3	-2.1	-3.9	-1.2	-2.5	-1.0	-0.2	-4.6	-2.5
One, 6-11 yrs old	6.4	12.8	5.1	11.2	17.7	2.4	1.2	3.6	7.7	9.2	2.3	1.0	8.0	4.2
Two or+, 6-11 yrs old	9.4	9.7	13.5	9.1	10.6	2.0	2.0	10.5	2.9	3.5	6.4	7.6	15.3	8.4
One 0-5 yrs old	8.4	2.6	16.6	7.5	13.7	5.0	6.5	5.2	3.1	-3.8	2.5	-5.8	3.8	1.2
One 0-5, One 6-11	11.9	4.1	12.2	12.9	24.5	-1.7	7.4	7.2	2.8	10.2	6.8	7.5	13.2	9.2
One 0-5, Two or+6-11	2.7	4.4	12.0	6.3	8.7	-6.0	9.4	16.7	-5.3	11.5	2.2	2.3	7.0	4.8
Two or+ 0-5	10.2	4.4	25.0	16.8	29.9	9.3	9.2	12.3	4.8	-2.4	-0.5	3.7	14.2	12.7
Two or+ 0-5, One 6-11	17.5	10.2	18.0	17.2	25.0	6.2	11.2	19.7	2.0	13.0	4.9	-3.9	8.2	5.3
Two or+ 0-5, Two or+ 6-11	-4.4	-12.7	4.0	4.1	6.6	1.0	-6.2	-5.8	-5.5	4.9	-5.7	-9.3	13.5	24.7

Age is strongly related to movie attendance as young respondents are much more likely to attend than are older groups. Those with higher income and educational levels are also more likely to attend, but about half the variation in both cases can be attributable to other factors. Males are more likely than females to go to the movies, but most of this difference disappears when other factors are controlled (Table 5.4a).

Attending Sports Events

Younger respondents are also much more likely to attend sports events. People with higher levels of income or education attend at higher than average rates, but this relationship is weakened considerably when other factors are controlled. Non-whites are notably below average in attending sports events. On the other hand, males are likely to attend sports events whether or not other factors are held equal.

Visit Zoo, Arboretum, or Botanical Garden

Older people and those in lower income brackets are generally less likely to visit zoos, arboretums, or botanical gardens. (Much of the variation, however, is due to the impact of other factors such as education.) Non-whites visit more often than the average, with blacks being much more likely than the average to visit these places. Males are slightly less likely than females to visit. Those with higher educational levels are considerably more likely to visit, even after adjustment for other factors.

Playing Cards and Various Games

Playing games such as cards or pinball is strongly related to age -- as younger people are much more likely to participate. Those with higher

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Table 5.4a: General Recreational Activities by Background Factors — MCA Adjusted for Other Background Factors (Percentage of Respondents Above and Below the Average for Total Sample)

	Go Out to Movie	Go to Sports Event	Visit Zoo Garden	Play Card Games	Go to Amuse. Parks	Jog Exercise	Play Sports	Camping Hiking	Read Books Mags.	Volunteer Charity Work	Collect Stamps, Coins, etc	Gourmet Meals	Home Car Repairs	Plants Garden
TOTAL SAMPLE:	69%	49%	32%	69%	50%	52%	40%	37%	84%	28%	15%	29%	61%	59%
Income:														
Under $10,000	-10.0	-8.9	-4.7	-8.8	-7.3	-5.7	-0.7	-0.8	-9.4	1.8	-0.4	-4.3	-3.8	-5.1
$10,000 - $14,999	-8.4	-8.7	-4.6	-5.0	-8.3	-7.5	-4.5	-2.1	-4.2	-4.4	-4.7	0.2	-5.1	-2.3
$15,000 - $19,999	-0.2	-2.8	-2.0	-0.8	-0.1	-1.2	-4.4	-3.4	1.4	-0.4	2.4	-1.9	-0.7	3.3
$20,000 - $29,999	0.9	0.8	1.6	1.3	3.7	0.7	-0.5	1.5	1.1	0.7	1.5	0.0	2.4	1.8
$30,000 - $49,999	6.6	8.1	6.4	4.9	3.8	7.9	4.3	3.6	3.6	2.3	1.1	1.9	4.2	1.6
$50,000 and over	11.7	23.3	7.0	10.7	1.1	6.2	16.9	-0.9	4.5	5.7	-0.8	8.6	2.8	1.0
Not ascertained	-0.6	-4.2	-4.9	-3.0	0.5	-5.3	-1.6	-2.8	-0.6	-4.8	-3.9	-0.2	-6.0	-7.0
Age:														
18–24	25.3	16.7	5.0	22.5	20.2	16.4	25.1	17.3	3.7	-2.5	4.6	4.5	12.1	-7.5
25–34	14.7	10.6	7.8	13.1	10.6	11.3	14.1	9.8	2.5	-4.7	2.8	1.1	6.5	-0.1
35–44	-0.4	2.4	1.0	-0.4	1.9	-1.5	0.7	5.4	-2.9	1.2	-5.0	1.7	1.1	3.9
45–54	-7.2	-2.6	-4.0	-7.6	-6.5	-4.3	-9.7	-6.5	-1.4	3.4	-1.9	-1.3	0.5	0.9
55–64	-19.1	-14.8	-3.9	-21.8	-13.8	-11.9	-18.6	-13.4	-1.8	4.7	-0.4	-4.2	-7.0	1.3
65–74	-25.5	-18.4	-9.2	-17.3	-20.6	-13.5	-25.3	-21.1	0.3	5.2	-1.2	0.2	-13.3	4.5
75–96	-34.7	-31.9	-17.1	-26.0	-30.4	-24.0	-29.9	-27.8	-4.8	-4.0	-3.8	-10.6	-29.7	-0.4
Ethnic-Race:														
White, Other Origin	0.9	0.9	1.8	3.4	1.5	2.2	2.8	-6.3	0.9	0.6	1.3	-0.8	2.3	3.5
Britian Isles White	4.8	2.6	0.4	[illegible]	-2.1	2.1	0.8	4.6	2.5	0.7	1.0	-5.3	1.4	-5.8
W. Europe White	0.8	5.6	-0.5	3.6	4.1	0.3	1.6	0.3	2.7	2.2	0.5	4.9	3.9	3.9
E. Europe White	6.9	-5.0	1.8	0.3	1.5	1.6	2.1	-4.4	0.5	-4.7	6.2	14.9	6.0	0.1
Hispanic	6.4	-1.5	1.9	-12.6	4.3	-7.4	-6.4	-13.8	-4.4	-0.1	0.4	1.0	-8.5	-13.1
Black (ex. Hispanic)	-13.4	-8.2	-9.4	-12.6	-12.1	-5.7	-8.5	-23.9	-7.3	-4.4	-4.4	-3.3	-10.1	-7.3
Other Races	-6.6	-23.0	-3.1	-13.8	-9.2	-15.4	-18.3	-17.7	-7.6	-6.8	-2.5	12.3	-24.2	-6.7
White (unknown origin)	-7.6	3.6	-1.5	-5.2	1.5	-3.5	-5.5	1.3	3.4	2.0	-5.9	-4.7	-4.7	-7.9
Sex:														
Male	.2	4.1	-2.1	1.6	-0.3	0.9	7.5	4.1	-2.2	-2.3	-0.7	-9.0	11.3	-9.5
Female	-.2	-3.5	1.8	[illegible]	0.2	-0.8	-6.6	-3.6	1.9	2.0	0.6	7.9	-9.9	8.2
Education:														
Grade school	-17.1	-14.8	-9.6	-18.1	-8.0	-14.6	-11.8	-6.3	-25.6	-14.1	-6.0	-10.4	-12.1	-12.5
Some high school	-13.7	-12.4	-11.9	-7.4	-8.1	-12.3	-11.4	-8.0	-12.1	-11.8	-6.7	-13.3	-12.4	-9.8
High school graduate	0.8	-0.8	-3.1	3.2	2.2	-1.2	-1.7	0.9	3.3	-1.9	-0.3	1.1	1.5	0.2
Some college	6.7	8.4	7.4	5.0	2.7	6.2	8.0	5.2	7.8	5.7	1.6	0.9	5.5	5.2
College graduate	10.3	15.3	11.5	5.9	4.7	14.1	12.8	0.9	10.4	12.7	5.5	11.1	5.7	7.1
Graduate school	16.8	8.3	18.0	5.4	3.4	16.8	10.2	5.1	11.9	21.7	9.9	14.3	8.1	10.1

levels of education or income are also more likely to participate, but much of the variation is due to other factors. Males are more likely to play these games than females, while Hispanics, blacks, and other non-whites play these games less often than the average.

Go to Amusement Park or Carnival

Visits to an amusement or theme park, a carnival, or similar places are more common among younger age groups. These visits also tend to be more likely among those with higher levels of income or education--except for the highest levels ($50,000 or more income and graduate education). Much of the variation for education and income is attributable to the influence of other factors. Males are slightly more likely than females to go to such places of amusement, but this reverses after adjustments are made for other factors; presumably differential income and education account for these original differences. After adjustment for the impact of other factors, blacks and members of "other" racial groups are least likely to visit such places of entertainment.

Jogging, Exercising

People with higher levels of income and education are more likely to exercise as are younger people. On the other hand, Hispanics and non-whites are the least likely to exercise. Males are more likely to exercise than females, but this difference is attributable to other background factors, such as income and education.

Playing Sports

Involvement in sports tends to be an activity of the young. In addition, those with higher educational levels and, to a lesser extent, those with higher income levels are more likely to be active in sports. Hispanics and non-whites are least likely to participate. Females are also less likely than males to participate in sports activities and this tendency persists after adjustment for other factors.

Outdoor Activities

The young also are much more likely to engage in outdoor activities such as camping, hiking, or boating. The likelihood of participation in outdoor activities rises with income except for the highest income bracket (perhaps reflecting the older average age in this category), but these differences by income are mostly attributable to other factors. Hispanics and non-whites are notably less likely than the average to participate in outdoor activities. Females are less likely than average to participate. Those with higher levels of education are more likely to engage in outdoor activities, but much of this variation is due to other factors.

Reading Books or Magazines

Reading books and magazines is strongly related to higher levels of education. This type of reading is more common among those who are younger or earning higher incomes, but these differences decrease when other variables are taken into account. Females are somewhat more likely to read above the average. Blacks and Hispanics are less likely than average to read books and magazines. Education is probably the major variable explaining differences in reading rates.

Do Volunteer, Charity Work

Higher levels of education are associated with participation in volunteer or charity work. Volunteer work also rises with income but this is largely due to other associated factors such as education. The likelihood of doing volunteer work increases with age until 35-44 and then decreases. (However, other factors being equal, the likelihood increases through the 65-74 group.) Blacks and Hispanics are least likely to do volunteer work. Males are somewhat less likely to participate in volunteer activities than are females and this trend persists after adjustment for other factors.

Collecting Stamps, etc.

Collectors tend to be better-educated and somewhat younger than average after control for other factors.

Gourmet Cooking

Those earning $50,000 and more, those with college degrees, and those of "other" races are markedly more likely than average to prepare gourmet meals. On the other hand, males and those over the age of 75 are noticeably less likely than the average to engage in gourmet cooking.

Home or Vehicle Repair

In general, those who are younger or better educated are more likely to do home or vehicle repairs. Males and those in higher income brackets are also more likely than average to make such repairs. However, much of the income and educational differences in making repairs are attributable to the effects of other factors. Hispanics and non-whites are the less likely to do such repairs than are whites.

Gardening, Plant Care

Those with higher levels of income and education are more likely to do indoor or outdoor gardening. Gardening activities are less common among those aged 18-24, blacks and Hispanics. Females are considerably more likely than males to garden.

CULTURAL RECREATIONAL ACTIVITY

Visit Science and Historical Museums

Those with higher educational and income levels are more likely to visit science and natural history museums. Those aged 25-34 are most likely to attend. Attendance generally decreases with age among those over 45 years of age.

Visit Historic Sites

Those with higher incomes, those aged 25-44, those with higher educational levels, and whites have higher than average attendance rates at historic sites. Much of the variation by income and age groups seems attributable to the factor of differential education.

Listening to or Reading Poetry

Listening to or reading poetry is more common among those with higher educational levels. It also tends to be more common among those with higher incomes, but other factors (particularly education) appear to considerably inflate the rates of those in higher income brackets and suppress the rates of those in lower income brackets. Younger people, "other" races, and women are more likely than the average to listen to or read poe-

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ble 5.3b Cultural Activities by Background Factors: Percentage of Respondents Above or Below the Average for the Total Sample.

	Visit Science Museum	Visit Historic Sites	Read, Listen to Poems	Visit Art Fair	Classes in Lit, Art, Music	Pottery, etc. Crafts	Needle Crafts	Theatre Help	Music Help	Creative Writing	Art Photos Videos	Painting, Sculpting, etc.
GRAND MEAN:	23%	37%	20%	39%	11%	12%	32%	3%	1%	[illegible]	11%	10%
Income:												
Under $10,000	-11.5	-21.6	2.5	-21.0	5.0	0.4	-3.7	1.3	2.1	1.3	-4.6	-1.9
$10,000 - $14,999	-10.2	-12.6	-6.5	-11.3	-4.2	-4.4	-2.0	-1.1	-1.7	-3.6	-7.5	-4.4
$15,000 - $19,999	-3.4	-5.3	-2.1	-3.9	-2.5	-0.3	1.9	-1.6	-1.8	-0.5	1.9	1.4
$20,000 - $29,999	2.2	1.0	-0.5	4.7	-1.4	1.4	1.9	0.1	0.1	-1.5	0.1	0.2
$30,000 - $49,999	7.7	13.1	4.8	12.6	4.5	2.5	1.8	1.7	0.1	1.8	5.9	2.5
$50,000 and over	10.4	18.9	6.7	8.8	4.6	0.3	2.9	0.5	0.3	2.6	1.2	-3.8
Not ascertained	5.2	1.7	-2.6	[illegible]	-4.9	-2.7	-1.2	-1.2	-0.5	2.5	-3.5	2.7
SMSA												
City of SMSA	0.4	-0.0	1.8	-1.2	0.5	-2.8	-2.8	0.3	0.2	2.9	0.3	1.8
SMSA, Not Cent City	3.4	4.0	0.2	3.6	1.5	[illegible]	2.0	-0.1	-0.3	0.1	1.4	0.1
Not in SMSA	-4.4	-5.6	-1.9	-2.0	-1.0	0.1	-0.4	[illegible]	0.2	-2.6	-2.9	-1.8
Age:												
18-24	1.6	-3.1	7.5	-4.4	13.9	5.1	-2.8	2.2	2.6	6.1	3.6	5.4
25-34	10.8	9.7	1.5	9.4	3.7	3.2	4.2	0.5	-0.1	1.4	5.9	5.4
35-44	2.1	8.7	4.7	7.0	-2.2	0.0	0.2	1.9	-0.3	-0.1	2.7	-1.4
45-54	2.4	2.6	-2.5	1.9	-4.7	-0.1	-3.7	-1.9	-0.3	-2.8	-3.1	-3.2
55-64	-6.5	-6.4	-6.1	-1.6	-6.3	-5.2	-2.5	-2.6	-0.5	-5.7	-4.2	-6.7
65-74	-1.6	-9.6	-5.2	-12.5	[illegible]	-4.1	3.9	-2.9	-1.5	-3.1	-7.9	-4.2
75-96	-17.0	-24.4	-7.9	-26.8	-10.3	-10.9	-5.1	-3.8	-1.0	-4.2	-9.9	-7.4
Marital:												
Married	0.2	3.1	-2.4	3.0	-3.9	-0.2	0.0	-0.5	-0.3	-2.1	-0.2	-1.2
Widowed	-10.1	-18.1	-2.4	-12.8	-7.0	-7.7	12.5	-2.3	-1.0	-5.6	-7.3	-6.3
Divorced	4.0	-1.5	4.6	2.8	-2.0	1.3	4.9	1.1	1.5	3.7	-4.5	2.8
Separated	-3.4	-4.9	1.6	-13.8	-3.3	-5.5	6.7	0.3	-1.0	3.5	3.5	-2.9
Never Married	3.7	-3.6	7.3	-4.2	13.2	3.2	-7.6	2.0	1.4	7.4	4.2	6.7
Ethnic-Race:												
White, Other Origin	2.0	2.4	0.8	3.3	1.8	1.8	3.7	0.1	0.0	1.5	0.4	1.6
British Isles White	-0.4	5.8	6.2	4.5	0.5	1.9	-0.0	[illegible]	-0.3	2.5	1.4	-1.0
W. Europe White	-0.3	3.9	-1.5	7.1	-1.8	4.0	-1.9	0.5	-0.1	-2.8	1.7	[illegible]
E. Europe White	5.6	8.3	-1.6	-0.2	1.9	-7.1	1.8	0.2	1.6	-1.1	1.9	0.0
Hispanic	-0.3	-10.9	-2.2	-12.8	1.6	-3.0	-9.5	0.4	0.0	1.9	-2.1	-1.6
Black (ex. Hispanic)	-10.2	-16.8	-4.4	-22.3	-3.7	-5.4	-9.7	-1.3	0.1	-1.7	-2.5	-3.8
ther Races	5.4	0.0	2.3	-5.6	-1.6	-6.2	1.2	-2.9	-0.0	-1.3	-4.5	3.9
te (unknown origin)	-6.2	-17.4	-7.6	-4.7	-4.6	-1.7	-1.3	6.1	0.5	-5.1	[illegible]	-7.9
[illegible]:												
Male	[illegible]	0.5	-3.5	-6.2	-2.3	-2.6	-27.9	-1.6	0.0	-2.7	2.2	-1.2
Female	-0.2	-0.4	3.0	5.4	2.9	1.4	23.5	1.5	-0.0	2.5	-2.9	1.0
Education:												
Grade school	-19.0	-25.1	-14.9	-27.1	-9.6	-10.2	-12.9	-3.8	-1.0	-6.5	-9.1	-8.7
Some high school	-14.9	-22.7	-14.7	-22.1	-7.4	-6.8	-4.7	-2.1	-1.9	-5.6	-7.8	-6.8
High school graduate	-3.7	-5.6	-3.3	-1.2	-3.8	1.3	4.9	-1.9	-0.2	-2.9	-3.7	-1.7
Some college	6.9	9.2	6.4	9.5	10.3	3.4	3.1	2.1	1.8	4.6	3.8	4.6
College graduate	16.1	24.5	[illegible]	20.2	7.8	3.5	0.2	2.5	0.3	5.3	11.2	6.9
Graduate school	30.6	35.6	23.4	26.3	2.1	4.6	-5.8	3.1	1.2	8.9	14.3	6.9
Workhrs:												
None	-5.0	-7.5	-2.8	-6.5	0.5	-1.5	7.2	-1.5	0.1	-1.6	-3.2	-1.2
1 to 29	2.6	8.7	11.6	9.0	3.5	4.1	10.9	3.6	1.5	4.8	5.8	5.6
30 to 39	4.5	3.5	2.1	1.1	3.5	1.4	2.3	-0.5	0.2	1.0	-1.9	1.9
40 hrs	2.6	1.7	-3.8	0.4	-4.5	1.1	-6.5	-1.6	-1.7	-1.2	-0.1	-1.4
41 to 49 hrs	2.1	4.3	-1.3	4.0	-2.1	1.9	-11.0	1.1	1.7	-1.3	3.2	6.6
50 or more	9.5	11.9	2.6	8.8	-3.3	-2.5	-19.8	0.4	0.2	1.1	6.2	-0.2
Work:												
Professional	20.9	25.4	15.7	19.0	3.1	[illegible]	-3.7	4.9	1.4	6.4	12.8	6.2
Managerial	7.2	19.0	6.7	6.7	1.6	-1.5	-14.1	-1.9	-1.0	1.2	8.9	0.1
Sales, Clerical	4.7	4.4	[illegible]	13.9	2.4	[illegible]	9.9	1.6	-0.0	1.3	-0.2	2.9
Craftsman	4.7	-3.3	[illegible]	-5.4	-7.9	-1.6	-21.9	-1.3	-0.4	-3.0	0.3	-1.7
Operative	-10.1	-13.3	-10.4	-13.4	-5.7	-2.3	-13.9	-2.7	-1.7	-4.0	-3.4	-3.1
Laborers	-6.3	-10.4	-7.3	-13.4	-5.4	-4.5	-22.7	-1.8	0.3	-3.1	-4.7	-2.1
Service Workers	[illegible]	-0.1	0.3	-1.7	4.6	0.2	5.4	0.1	-0.5	0.4	-0.0	-0.0
Not Working	-5.8	-4.1	1.8	-10.8	2.2	1.2	1.6	-0.1	1.6	4.7	-3.9	5.1
Keeping House	-4.0	-10.0	-5.7	-4.0	-3.1	-3.1	22.9	-2.5	-1.7	-4.8	-5.0	-3.9
Student	15.2	7.8	28.9	8.8	41.2	10.5	-5.5	9.5	7.4	14.0	13.0	3.2
Retired	-10.0	-10.4	-10.8	-14.3	-8.4	-6.5	-20.3	-2.2	-1.0	[illegible]	-7.9	-7.3
Presence of Children												
No Children	-1.3	-2.8	0.5	[illegible]	1.7	-0.2	-1.3	0.1	0.2	0.4	-1.7	-0.4
One 6-11 yrs	6.4	9.5	3.8	2.9	-2.8	1.1	2.4	-1.8	-1.0	-4.7	0.2	-0.4
Two or+ 6-11 yrs	[illegible]	-1.9	-6.0	-3.4	-5.3	-0.1	-1.3	-0.4	-0.3	0.2	1.7	-2.0
One Under 6	2.7	2.3	-3.2	6.4	-2.1	1.6	3.3	1.9	-0.1	-1.1	4.0	3.6
One 0-5, One 6-11	2.7	5.1	-4.6	7.4	3.9	1.4	5.4	-1.2	-1.0	-1.2	-3.6	-3.3
One 0-5, Two or+ 6-11	-9.2	1.3	2.4	12.2	5.0	-5.0	8.6	0.3	2.8	5.7	-5.8	-1.2
Two or+ 0-5	8.0	10.9	2.8	7.3	-5.0	1.0	3.6	-1.6	-1.6	[illegible]	7.8	6.1
Two or+ 0-5, One 6-11	3.8	-6.1	-5.8	4.0	-5.5	1.9	13.8	3.6	1.7	5.1	5.1	[illegible]
Two or+ 0-5, Two or+ 6-1	5.7	4.9	-4.0	-3.9	2.3	-1.2	-0.3	-3.8	[illegible]	[illegible]	-4.9	[illegible]

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Visit Arts or Crafts Fairs

Attendance of arts or craft fairs is more common among those with higher incomes, with more education, those aged 25-44, among whites, and females. Other factors, however, account for much of the differences in attendance by income or age, with education once again probably being the major explanatory factor.

Arts-Related Lessons or Classes

Those with higher incomes are generally more likely to have taken lessons or classes in literature, creative writing, art, photography, craft arts, ballet, music, etc. However, those earning under $10,000, those aged 18-24, and those with some college education (all typical characteristics of current college students) are even more likely to have taken such classes in the last 12 months. In contrast, males, blacks, people without any college education, and adults older than age 35 are less likely than average to participate in these classes.

Craft Activities

The better-educated, those under 35, and whites are more likely to have engaged in crafts such as pottery, ceramics, jewelry, leather, metal, or similar materials. Those earning $10,000-$14,999, males,—and other factors being equal, those making over $30,000,— are less likely than the average to engage in these crafts.

Needle Crafts

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Table 5.4b-c Cultural Activities by Background Factors Adjusted for Influence of Other Factors: Percentage of Respondents Above or Below the Total Sample.

	Visit Science Museum	Visit Historic Sites	Read, Listen to Poems	Visit Art Fair	Classes in Lit. Art, Music	Pottery etc. Crafts	Needle Crafts	Theatre Help	Music Help	Creative Writing	Art Photo Video	Painting Sculpting etc.
TOTAL SAMPLE:	22%	38%	20%	40%	11%	13%	32%	3%	1%	7%	10%	10%
Income:												
Under $10,000	-4.8	-8.7	3.8	-8.2	[illegible]	4.5	-3.8	1.6	1.8	0.7	-1.1	0.8
$10,000 - $14,999	-4.9	-2.0	-2.1	-0.8	-2.0	-1.0	-1.2	[illegible]	-0.5	-1.2	-3.0	[illegible]
$15,000 - $19,999	[illegible]	-2.1	0.4	-0.5	-0.9	0.2	-0.2	-0.3	-0.6	0.3	2.6	1.9
$20,000 - $29,999	1.0	0.0	0.2	2.0	-1.0	0.5	1.3	0.1	0.1	-0.2	-0.2	0.0
$30,000 - $49,999	1.5	5.1	0.7	4.2	2.8	-0.9	2.2	0.1	-0.0	0.0	2.0	-0.1
$50,000 and over	9.1	3.0	-3.8	-5.1	1.2	-2.5	0.6	-0.9	-0.1	-1.5	-3.6	-5.2
Not ascertained	4.7	0.4	-1.9	-3.7	-3.5	-1.3	-3.5	-1.0	-0.4	1.8	-1.9	2.2
Age:												
18-24	1.8	0.5	3.4	-2.2	6.6	4.6	0.1	0.9	0.7	3.0	1.2	3.6
25-34	6.6	3.7	-2.3	5.7	3.4	3.2	4.3	0.2	-0.2	0.1	4.5	4.2
35-44	-1.6	1.9	2.5	[illegible]	-0.8	-0.3	0.7	1.2	-0.3	0.1	1.2	-1.4
45-54	-3.3	0.4	-0.0	1.6	-2.2	-0.4	-3.1	-0.5	-0.1	-0.1	-2.6	-2.6
55-64	-3.8	-3.9	-3.2	0.6	-4.4	-5.7	-3.6	-1.0	-0.1	-3.0	-3.0	-4.9
65-74	-1.7	-1.1	[illegible]	-7.9	-4.7	-2.7	2.4	-1.0	0.2	-0.3	-4.2	-1.7
75-96	-8.3	-12.7	-1.2	-19.4	-9.2	-7.6	-6.3	-2.0	-0.2	[illegible]	-5.6	-4.0
Ethnic-Race:												
White, Other Origin	1.4	1.7	-0.2	2.5	0.3	0.5	1.9	0.0	-0.0	0.5	0.3	0.4
British Isles White	-2.6	1.9	[illegible]	0.7	0.6	1.0	-0.6	0.4	-0.4	1.3	0.8	-1.1
W. Europe White	-0.8	1.9	-1.0	6.5	0.1	4.0	1.2	-0.4	-0.0	-1.2	0.5	1.9
E. Europe White	4.9	6.6	-0.2	-0.2	3.2	-6.9	1.9	0.6	0.8	-0.4	1.4	0.9
Hispanic	4.4	-2.9	3.3	-5.9	1.3	-1.2	-6.3	0.9	0.3	1.0	-0.3	-0.0
Black (ex. Hispanic)	-5.9	-10.1	[illegible]	-15.5	-2.9	-4.6	-8.7	-1.3	0.0	-1.2	-1.0	-2.8
Other Races	-3.2	-9.3	[illegible]	-11.8	-3.2	-7.6	-0.5	-2.9	-0.2	-3.7	-7.6	0.9
White (unknown origin)	-1.0	-10.7	[illegible]	-2.0	-2.0	0.4	1.4	6.8	0.8	-3.0	-2.5	-5.5
Sex:												
Male	-2.2	-2.5	-4.9	-8.4	-2.7	-2.3	-27.0	-1.1	-0.1	-3.4	1.4	-1.9
Female	1.9	2.1	4.3	7.4	2.4	2.0	23.5	1.0	0.1	3.0	-1.2	1.7
Education:												
Grade school	-11.5	[illegible]	-12.4	-18.0	-3.7	-6.6	-7.7	-1.9	-0.9	-3.1	-4.2	-4.4
Some high school	-9.8	-17.1	-13.5	-18.6	-5.5	-4.7	-6.5	-1.7	-0.8	-3.8	-4.2	-4.7
High school graduate	-2.9	-4.6	-2.7	-2.5	-2.7	1.3	1.7	-0.6	0.1	-1.9	-2.1	-1.0
Some college	3.8	7.5	[illegible]	7.4	6.7	1.8	3.0	1.3	0.4	2.2	0.9	2.4
College graduate	9.9	18.7	12.1	17.4	5.5	2.5	1.9	2.0	0.2	4.6	7.8	5.0
Graduate school	24.4	27.9	23.8	23.6	2.9	2.2	2.4	2.2	0.8	7.7	10.0	5.2

Males in particular, but also blacks and Hispanics, are markedly less likely than average to engage in weaving, crocheting, quilting, needlepoint, sewing or similar crafts. Those with higher incomes are slightly more likely than the average to be involved in such crafts. These crafts are also somewhat more common among a younger group aged 25-44, and the older group aged 65-74, but less common among those without high school diplomas and those with post-graduate educaton. However after adjustments for the impact of other factors, all educational level groups past high school are about equally likely to do needle crafts.

"Backstage" Work for a Play, Opera, or Ballet

Very young adults, those earning under $10,000, or those with higher levels of education are more likely to have done nonperforming "backstage" production work for a play, opera, or ballet.

Backstage Work for a Jazz or Classical Music Performance

Very young adults, those earning under $10,000, and those with higher levels of education are also more likely to have done nonperforming production work for a jazz or classical music performance.

Creative Writing

Very young adults and those with at least some college education are more likely to do creative writing. To a lesser extent, females, the least or most affluent, and whites are also more likely than the average to pursue creative writing.

Artistic Photography, Videos

Younger age groups (18-44), whites, males, those with higher levels of education, and those earning at least $15,000 are more likely than the average to engage in making photographs, movies, or video tapes. Only the education factor remains a strong influence after control for other factors.

Visual Arts Activities

Younger people (aged 18-34), people with intermediate earning levels, and those with at least some college education are more likely than the average to engage in painting, drawing, sculpture, or printmaking activities.

In sum, respondents with certain background characteristics are noticeably more likely to engage in each of these recreational activities. The background characteristics of groups with higher rates are often the same for each activity: higher education, relatively younger age groups and the more affluent. Nevertheless, these characteristics are not always the best predictors or explanatory factors. Income in particular is often a more effective predictor than explanatory factor; education, which is closely associated with income, is usually the major explanatory variable -- holding up after factors are controlled.

4) DIMENSIONS AND CLUSTERS OF LEISURE-TIME ACTIVITIES

As already noted, one of the purposes of the study was to identify how recreational and leisure-time activities clustered into particular patterns. The manner in which the more cultured of these activities formed into clusters was of particular interest. A factor analysis, therefore, was performed on all 26 of the items in Table 5.2a.

The result of this factor analysis was the identification of five separate dimensions of recreational activity. However, four of these dimensions were "weak", in the sense that the factor loadings that identified them were in the .3 to .5 or "low" range for such loadings, and only two to four activities were identified on each. The main result from this analysis was that all the activities were related positively to each other, and that one "general activity" factor was a more apt descriptor of the data than the five dimensions that emerged from the analysis.

Nonetheless, the structure of these five dimensions is shown in Table 5.5. The first dimension in Table 5.5 included going to the movies, attending sports events, playing games, visiting amusement parks, jogging (or other exercise programs), engaging in sports activities, camping, reading books, improving or repairing the home or vehicles, and (to a lesser extent) visiting a zoo or arboretum, or an arts and crafts fair. This cluster represents a life-style organized primarily around activities away from home, many involving physical activity.

A second dimension includes painting/drawing/sculpturing/printmaking, lessons in the arts, creative writing, and to a lesser extent pottery (and similar crafts) and making artistic photographs/movies/video tapes. This dimension, then, clusters activity directly involving more creative arts and crafts.

A third dimension comprises gardening, weaving (and similar needle crafts), preparing gourmet meals, and (to a lesser extent) visiting arts and crafts fairs. This cluster reflects involvement in creative domestic activities that may be considered as traditionally feminine.

A fourth dimension clusters visiting science and history museums, historical sites, zoos or arboretums, and to a lesser extent arts and crafts fairs. In contrast to the first cluster, this group of activities is organized around more intellectual and aesthetic appreciation rather than physically active activities away from home. It also differs from the emphasis on creation of arts and crafts in the second and third clusters.

A fifth dimension somewhat loosely groups "backstage" production work — both for plays, operas, and ballets, and for jazz or classical music performances. It suggests that people who have the interest and skills to perform such support activities for one type of performance are more likely to be interested in, and recruited for, similar work for other kinds of performances.

Thus, factor analysis suggests five separate groupings of recreational activities and leisure-time activities. The first cluster largely excludes arts and crafts activities, except for a somewhat weak association with attending arts and crafts fairs. The fourth cluster has a stronger association with visiting arts and crafts fairs, and seems to represent art spectators rather than creators. The fifth cluster involves a closer, active, supportive involvement with the arts community, but as a non performer. The third cluster includes some active involvement in the arts (and crafts), as well as a weaker association with less active appreciation at arts and crafts fairs. Finally, the second cluster reflects activities involving creation of arts and crafts. In short, this analysis suggests that patterns of general life-styles do exist and arts and crafts stand in different relationships--active vs. passive, intellectual vs. manual, and domestic vs. away-from-home -- with each life-style.

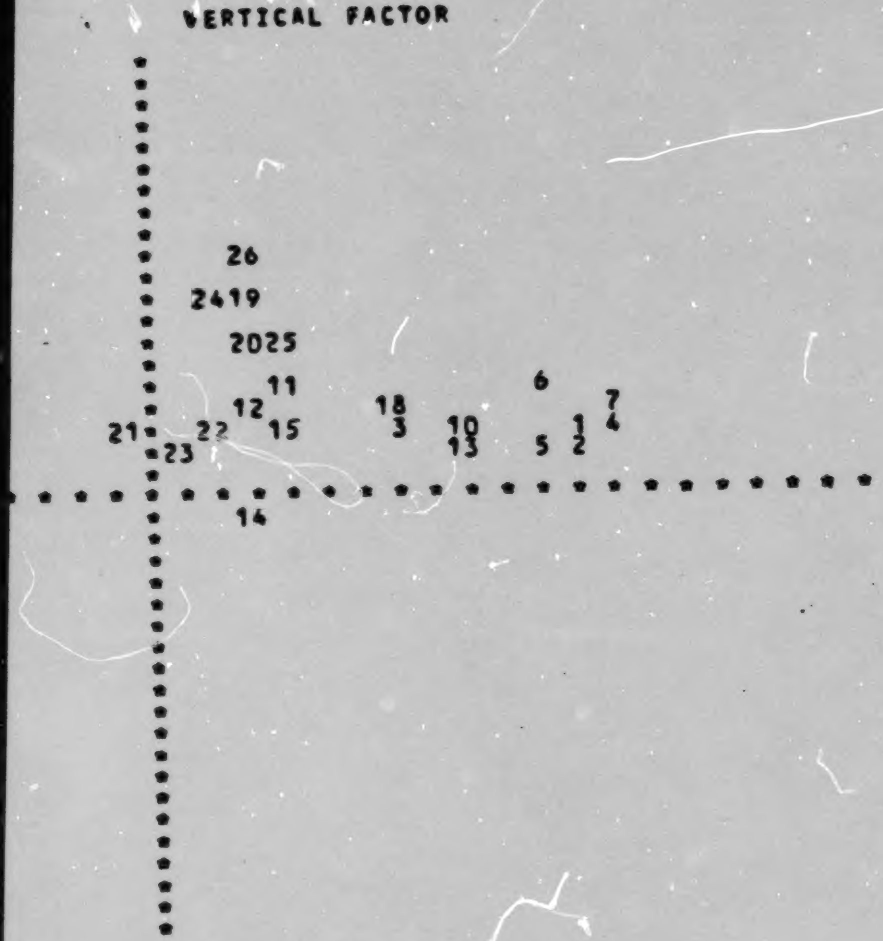
These types of clusters, then, can be cross-tabulated by attendance at "core" arts events to see whether correlate with arts participation in terms of the core questions in Chapter 3. At the same time, we also see value in utilizing a general activity factor -- one involved in any leisure activity whether at home or away from home, and with or without an aesthetic character.

A spatial representation of these first two dimensions of the factor analysis is shown in Figure 5.1. The clustering of more general away-from-home activities (movies, zoos, etc') is shown at the right hand side of Figure 1. The clusters of more active cultural activities (photography, painting, backstage work, etc') is shown more at the top of Figure 1. (The other three clusters require more than a two-dimensional representation that cannot be shown in a diagram like Figure 1.)

Table 5.5: Dimensions of Recreational Activities: Varimax Rotated Factor Matrix.

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
Attend Movie	*.587	.148	.064	.167	.015
Attend Sports	*.566	.092	.010	.136	.069
Zoo	.328	.139	.159	*.439	.023
Games	*.607	.104	.144	.095	.011
Amusement Park	*.510	.062	.137	.152	.063
Exercise	*.507	.204	.131	.083	.059
Do Sports	*.624	.161	-.073	.091	.050
Outdoors	*.446	.141	.055	.182	-.004
Charity	.171	.137	.240	.226	.168
Reading	.425	.100	.296	.107	.017
Collecting	.160	.209	.159	.110	.052
Gourmet Meals	.149	.199	*.402	.133	-.003
Improve Home/Car	*.445	.086	.174	.104	-.008
Gardening	.123	-.001	*.581	.115	-.013
Science Museum	.197	.128	.088	*.562	.058
Historical Sites	.308	.173	.217	*.570	.021
Listen to Poetry	.120	.318	.233	.191	.179
Arts&Crafts Fair	.307	.188	.358	.357	.052
Art Classes	.144	*.440	.077	.049	.154
Pottery	.133	.327	.184	.027	.048
Needle Crafts	-.004	.131	*.485	.035	.051
Nonperf. Plays	.056	.132	.041	.056	*.667
Nonperf. Music	.008	.061	.013	.012	*.399
Creative Writing	.064	*.421	.036	.101	.228
Movies/Photo	.159	.334	.134	.177	.042
Paint	.103	*.531	.095	.063	-.072

Figure 5.1: Clustering of Activities in First Two Dimensions from Factor Analysis



1 = GOMOVIE
2 = GOSPO
3 = ZOO
4 = GAMES
5 = AMUSE
6 = JOG
7 = SPORTS
8 = CAMPI
9 = CHARITY
10 = BOOKS
11 = COLLECT
12 = MEALS
13 = IMPROVE
14 = PLANT
15 = VISCI
16 = VISHI
17 = LISTEN
18 = VISAR
19 = CLASS
20 = POTTE
21 = WEAVE
22 = PLASE
23 = MULITES
24 = POEMS
25 = MOVIES
26 = PAINT

5) BACKGROUND DIFFERENCES IN INDICES OF RECREATION AND CULTURAL ACTIVITIES

Our first analysis described how respondents with certain background characteristics are more likely to engage in particular recreational activities. We have now just found how these activities tend to cluster into overall dimensions or patterns that make it possible to simplify the prior analyses, by identifying persons with particular social backgrounds who may be more likely than others to engage in patterns of activities. In this section, we will analyze these relationships.

Involvement in patterns of activity is defined operationally through indices which measure the number of activities within a given set or cluster in which a respondent was involved. Thee indices are based on, but not strictly dictated by, the results of the factor analysis in the preceding section. As in Chapter 3, each respondent was given one point for each relevant activity in which they had participated in the previous 12 months.

Our analysis will treat five such indices: 1) all 26 recreational activities; 2) nine general activities carried on away from home--going out to movies, sports events, zoos (or arboretums or gardens), games, amusement parks, jogging, playing sports, outdoors activities, volunteer activities; 3) five general activities usually carried on at home-- reading books, collecting, making gourmet meals, making repairs or improvements, and gardening; 4) four cultural away-from-home activities -- visiting science museums, historical sites, and arts and crafts fairs as well as poetry readings; 5) seven arts and crafts activities --lessons such as literature, pottery work, weaving, production work for play/musical/opera/ballet, production work for jazz/classical music productions, creative writing, photography/film, and painting/drawing/sculpting/or printmaking.

Table 5.6 examines the associations between ten background factors and the average index scores on each of these five sets of "life-style" activities for each group (i.e., the average number of activities within that set). Table 5.7 shows the same association for each variable, adjusted for the impact of the other background variables. These data indicate whether the factor is still a strong predictor (i.e., a useful explanatory factor) after controlling for other variables. The more important relationships will be described below for each of the indices.

i) Index of All Recreational Activities

In Table 5.6 better educated, wealthier, and younger people tend to be involved in more activities. In contrast, blacks, non-employed men, housewives, widows, separated spouses, and the non-working engage in fewer recreational activities than the average individual, as represented by the grand mean.

When other factors are taken into account in Table 5.7, the relationship between income and the index is considerably lessened, and widows and separated people also move to about average in their participation as do those with children. Both age and education seem to be the factors explaining a large part of these reduced correlations.

ii) Index of Recreational Activities Away from Home

Younger, better educated, wealthier individuals are also more likely to participate in a broad range of recreational activities away from home. After adjustment for the influence of other factors, the influence of age remains strong, but the influences of income and, to a lesser extent, education are attenuated. Those who have never been married and those with

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Table 5.6: Indices of Life-style Activities by Background Factors: Above Below the Grand Mean of Number of Activities

	All Activities	Away From Home	At Home	Cultural Visits	Arts and Crafts
GRAND MEAN	8.9	4.8	1.9	1.2	0.9
Income:					
Under $10,000	-2.6	-1.6	-0.6	-0.5	0.0
$10,000 - $14,999	-2.3	-1.3	-0.5	-0.4	-0.3
$15,000 - $19,999	-0.5	-0.2	0.1	-0.1	0.0
$20,000 - $29,999	0.6	0.3	0.1	0.1	0.0
$30,000 - $49,999	2.0	1.1	0.4	0.4	0.1
$50,000 and over	2.3	1.5	0.5	0.5	0.1
Not applicable	-0.3	-0.4	-0.2	0.0	-0.1
SMSA:					
Central city of SMSA	-0.2	0.0	-0.1	0.0	0.0
SMSA, not central city	0.7	0.4	[illegible]	0.1	0.1
Not in SMSA	-0.7	-0.5	-0.1	-0.1	-0.1
Age:					
18 - 24 years	1.8	1.5	0.1	0.0	0.3
25 - 34 years	2.1	1.2	0.3	0.3	0.2
35 - 44 years	0.8	0.5	0.3	0.2	0.0
45 - 54 years	-0.7	-0.5	0.0	0.0	-0.2
55 - 64 years	-1.9	-1.4	-0.1	-0.2	-0.3
65 - 74 years	-3.0	-2.2	-0.4	-0.4	-0.3
75 - 96 years	-5.4	-3.1	-0.8	-0.7	-0.5
Marital:					
Married	0.1	0.0	0.1	0.0	-0.1
Widowed	-3.6	-2.4	-0.6	-0.4	-0.2
Divorced	0.4	0.0	0.0	0.1	0.1
Separated	-1.8	-0.5	-0.4	-0.2	0.0
Never married	1.2	1.0	-0.2	0.0	0.3
Ethnic/Race:					
White, other origin	0.6	0.3	0.1	0.1	0.1
White, British Isles	0.4	0.1	0.1	0.2	0.0
White, W. Europe	0.6	0.2	0.1	0.1	0.0
White, E. Europe	0.3	-0.2	0.1	0.1	-0.1
Hispanic	-1.2	-0.5	-0.4	-0.2	-0.1
Black (exclude Hispanic)	-2.9	-1.3	-0.5	-0.5	-0.2
Other races	-1.0	-0.5	-0.1	0.1	-0.1
Sex/Work:					
Men employed	0.4	0.6	0.0	0.0	-0.3
Men other	-1.6	-0.6	-0.3	-0.3	-0.4
Women employed	1.5	0.6	0.2	0.3	0.4
Housewife	-1.6	-1.3	-0.2	-0.3	0.0
Women other	0.4	-0.1	0.0	0.2	0.6
Education:					
Grade School	-5.3	-2.8	-1.1	-0.9	-0.6
Attended High School	-3.7	-1.6	-0.6	-0.7	-0.4
High School Graduate	0.1	0.2	0.0	-0.1	0.0
Attended College	2.0	1.1	0.3	0.3	0.3
College Graduate	3.2	1.5	0.5	0.8	0.4
Attended Grad School	4.0	1.6	0.7	1.1	0.3
Work Hours:					
None	-1.2	-0.8	-0.2	-0.2	0.0
1 - 29	1.6	0.6	0.2	0.3	0.4
30 - 39	0.6	0.5	0.1	0.1	0.1
40 hours	0.3	0.5	0.1	0.0	-0.1
41 - 49	0.9	0.7	0.1	0.1	0.0
50 or more	1.3	0.9	0.3	0.3	-0.2
Number of Children					
None	-0.5	-0.3	-0.1	0.0	0.0
One, 6 - 11 years	1.1	0.6	0.3	0.2	0.0
Two+, 6 - 11 years	1.2	[illegible]	0.3	-0.1	-0.1
One, under 6	0.6	[illegible]	0.1	0.1	0.1
One, 0 - 5/One, 6 - 11	1.5	[illegible]	0.4	0.1	0.0
One, 0 - 5/Two+, 6 - 11	1.2	0.5	0.3	0.1	0.1
Two+, 0 - 5	2.1	1.2	0.1	0.2	0.1
Two+, 0 - 5/One, 6 - 11	1.4	1.2	0.2	0.0	0.2
Two+, 0 - 5/Two+, 6 - 11	0.4	-0.2	0.2	-0.1	0.0

young children are also more likely to engage in these activities, but both of these higher rates are attributable to other factors, such as age or education.

iii) Index of Recreational Activities at Home

Better educated and wealthier individuals are more likely to engage in the five selected recreational activities at home. Older persons, blacks, Hispanics, widows and separated spouses generally participate in fewer of the domestic recreational activities, but a considerable part of these lower rates seems attributable to other factors, such as income and education.

iv) Index of Visits to Cultural Facilities

The better educated and the wealthier are more likely to visit cultural facilities (science museums, historic sites, etc.) but the association with income is largely attributable to the influence of other factors, probably education. Older persons, Hispanics, blacks, non-employed men, housewives and widows are less likely than average to engage in this type of activity. After adjustment, only the differences by education remain clear and consistent.

v) Index of Arts and Crafts Activities

Better educated and younger persons, women other than housewives, and never married persons tend to involve themselves in a greater range of arts and crafts activities. The relatively high rate for the never married seems largely due to the influence of age.

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Table 5.7: Indices of Life-Style Activities by Selected Background Factors, Adjusted for Background Factors: Above or Below the Grand Mean

	All Activities	Away From Home	At Home	Intellectual Visits	Arts or Crafts
GRAND MEAN	8.9	4.8	1.9	1.2	0.9
Income:					
Under $10,000	-0.7	-0.6	-0.1	-0.2	0.1
$10,000 - $14,999	-0.8	[illegible]	-0.2	-0.1	-0.1
$15,000 - $19,999	-0.2	[illegible]	0.0	0.0	[illegible]
$20,000 - $29,999	0.2	0.1	0.1	0.0	0.0
$30,000 - $49,999	0.7	0.5	0.1	0.1	0.1
$50,000 and over	0.8	0.8	0.2	0.0	-0.1
Not applicable	-0.3	-0.3	-0.2	0.0	-0.1
SMSA:					
Central city of SMSA	0.2	0.1	0.0	0.1	0.0
SMSA, not central city	0.1	0.1	0.0	0.0	0.0
Not in SMSA	-0.3	-0.2	0.0	0.0	0.0
Age:					
18 - 24 years	1.9	1.5	0.1	0.0	0.2
25 - 34 years	1.4	0.9	0.1	0.1	0.2
35 - 44 years	0.1	0.1	0.1	0.1	0.0
45 - 54 years	-0.7	-0.5	0.0	0.0	-0.1
55 - 64 years	-1.6	-1.2	-0.1	-0.1	-0.3
65 - 74 years	-1.8	-1.5	-0.1	-0.1	-0.2
73 - 96 years	-3.6	[illegible]	-0.5	-0.4	-0.5
Marital:					
Married	0.1	0.0	[illegible]	0.0	0.0
Widowed	0.0	0.2	0.0	0.1	-0.1
Divorced	0.3	0.2	-0.1	0.0	-0.1
Separated	-0.2	0.1	-0.2	0.0	0.0
Never married	-0.4	-0.1	-0.3	-0.1	[illegible]
Ethnic/Race:					
White, other origin	0.4	0.2	0.1	0.1	0.0
White, British Isles	0.3	0.2	0.0	0.1	0.0
White, W. Europe	0.5	0.2	0.1	0.1	0.1
White, E. Europe	0.8	0.1	0.1	0.1	0.0
Hispanic	-0.7	-0.3	-0.2	0.0	-0.1
Black (exclude Hispanic)	-2.1	-1.0	-0.3	-0.4	-0.2
Other races	-2.2	-1.1	-0.3	-0.2	-0.3
Sex/Work:					
Men employed	0.1	0.5	0.0	0.0	-0.3
Men other	-0.9	-0.4	-0.1	-0.3	-0.3
Women employed	1.2	0.5	0.2	0.3	0.4
Housewife	-0.8	-1.0	-0.1	-0.3	0.1
Women other	0.2	-0.7	0.0	0.2	0.5
Education:					
Grade School	-3.0	-1.3	-0.6	-0.9	-0.4
Attended High School	-2.8	-1.1	-0.5	-0.7	-0.3
High School Graduate	-0.3	0.0	0.0	-0.1	-0.1
Attended College	1.1	0.6	0.3	0.3	0.2
College Graduate	2.5	1.0	0.5	0.8	0.4
Attended Grad School	3.6	1.1	0.6	1.1	0.4
Work Hours:					
None	0.9	0.7	0.1	0.0	0.1
1 - 29	0.0	-0.4	0.0	0.1	0.1
30 - 39	-0.7	-0.4	-0.1	0.0	-0.1
40 hours	-0.9	-0.6	-0.1	-0.1	-0.2
41 - 49	-1.0	-0.5	-0.1	-0.1	-0.1
50 or more	-0.5	-0.4	0.0	0.1	-0.1
Number of Children:					
None	0.0	0.0	0.0	0.0	0.0
One, 6 - 11 years	0.4	0.3	0.1	0.1	-0.1
Two+, 6 - 11 years	0.4	0.2	0.1	-0.3	-0.2
One, 0-5 years	-0.9	-0.3	-0.1	-0.1	-0.1
One, 0 - 5/One, 6 - 11	0.3	0.0	0.2	[illegible]	-0.2
One, 0 - 5/Two+, 6 - 11	0.5	-0.1	0.1	[illegible]	0.0
Two+, 0 - 5	0.0	0.1	-0.1	[illegible]	-0.1
Two+, 0 - 5/One, 6 - 11	0.3	0.5	0.0	-0.2	0.1
Two+, 0 - 5/Two+, 6 - 11	-0.2	-0.4	0.2	[illegible]	0.0

In sum, these indices recapitalute how respondents of certain social backgrounds tend to be more involved in varying types and dimensions of recreational activities. Several relationships hold across the sets of activities, although in varying degrees of strength. They suggest how these five factors seem more interrelated than distinct from one another, as one would like to find if the activities were used to construct hypothetical life-styles based on these ten questions. Thus, we find younger, wealthier, better educated individuals, workers, residents of SMSA's outside of central cities, and employed women tend to engage in more activities within each set (all activities, at-home activities, away-from-home activities, cultural activities, arts and crafts). Interestingly, the common assumption that children inhibit recreational activities is not supported by these data; individuals without children at home do not participate in a greater number of activities within each set than do individuals with children. Generally, education is the strongest predictor of wider involvement in any of these sets of recreational activities, much as it was for the core arts activities.

Education is also the most powerful explanatory variable. The pattern of association between education and each set of activities is generally maintained after controlling all the other background variables. However, many of the other background variables are fairly weak explanatory factors. For example, after adjustment for other factors, income and SMSA account for little variation in any of the sets of activities.

6) RECREATIONAL ACTIVITIES, LIFE-STYLE AND PARTICIPATION IN THE ARTS

Single Recreational Activities: A major question in this study involved the relationship between recreational activities (or patterns of life styles) and participation in the arts. Table 5.8 shows the correlations between each recreational activity and participation in each of the eight core arts questions. Table 5.9 shows the same basic type of conditional data except using a different measure -- the odds ratio. The odds ratio is the ratio of the probability of a person participating in Activity 2 given they participate in Activity 1 divided by the probability of doing Activity 2 if they do not do Activity 1. The odds ratio, then, has a more directly interpretable quality to it than the correlation coefficient.

Almost all the correlations are positive in Table 5.8 and above 1.0 in Table 5.9, suggesting that arts participation is greater among those who are more active in other recreational and leisure-time activities.

That indicates that the view that involvement in other recreational activities inhibits arts participation is in need of re-examination. Instead we are faced with the situation of "the more, the more", or somewhat paradoxically the more one engages in potentially "competing" leisure activities, the more one attends arts events as well.

However, most of the correlation coefficients are relatively low (under .20) indicating that recreational activity is not a strong predictor of arts participation. Some of the stronger predictors of arts attendance are discussed below. (Correlations of 0.20-0.29 will be referred to as moderate; correlations of 0.30-0.39 as substantial; correlations of 0.40-0.49 as strong.) At the same time, the odds ratios indicate that while the correlation between going to movies and going to jazz performances is only

.17, those who attend movies are more than four times more likely to attend jazz performances as those who do not go to movies.

Table 5.8: Correlations between-Life Style Activities and Core Arts Activities.

	Jazz	Classical Music	Opera	Musicals	Plays	Ballet	Art Museum	Reading
Attend Movie	.170	.157	.069	.204	.186	.107	.260	.286
Attend Sports	.155	.130	.060	.196	.145	.078	.197	.240
Zoo	.168	.177	.090	.208	.169	.109	.319	.230
Games	.144	.098	.025	.144	.120	.071	.183	.280
Amusement Park	.118	.086	.007	.123	.105	.048	.165	.180
Exercise	.176	.157	.040	.194	.157	.095	.238	.299
Do Sports	.161	.124	.036	.178	.155	.084	.192	.212
Outdoors	.118	.103	-.008	.123	.092	.062	.165	.167
Charity	.099	.210	.086	.190	.197	.114	.218	.194
Reading (general)	.094	.147	.069	.177	.145	.083	.203	.440
Collecting	.081	.091	-.002	.105	.093	.089	.199	.171
Gourmet Meals	.122	.182	.092	.185	.156	.123	.244	.212
Improve Home/Car	.093	.100	.030	.104	.081	.034	.150	.163
Gardening	.052	.119	.042	.123	.106	.064	.143	.188
Science Museum	.141	.266	.129	.265	.232	.114	.471	.239
Historical Sites	.161	.249	.085	.266	.245	.154	.401	.302
Listen to Poetry	.156	.252	.117	.188	.210	.155	.281	.322
Arts & Crafts Fair	.152	.241	.075	.257	.205	.164	.341	.336
Art Class	.163	.156	.082	.126	.139	.116	.198	.180
Pottery	.071	.081	.042	.065	.059	.036	.151	.138
Needle/Fiber Craft	.039	.110	.049	.103	.060	.085	.121	.205
Nonperf. Plays	.111	.170	.037	.163	.172	.084	.132	.111
Nonperf. Music	.153	.122	.045	.058	.061	.072	.058	.058
Creative Writing	.208	.161	.044	.117	.159	.131	.202	.176
Movies/Photo	.099	.114	.022	.124	.099	.065	.213	.148
Paint	.134	.113	.040	.077	.089	.075	.208	.150

Table 5.9: Odds-Ratios of Participation in Various Relation Activities and Participation in Arts Participation

	JAZZ	CLASSICAL MUSIC	OPERA	MUSICALS	PLAYS	BALLET	ART MUSEUM	READING
Movie	4.4*	3.2	2.9	3.0	4.2	4.4	3.8	1.8
Sports event	2.6	2.1	2.0	2.4	2.3	2.2	2.2	1.5
Zoos	2.7	2.6	2.6	2.3	2.4	2.7	3.2	1.5
Games	3.2	1.9	1.4	2.1	2.3	2.3	2.3	1.8
Amusement park	2.1	1.6	1.1	1.7	1.7	1.6	1.9	1.4
Jog	3.5	2.5	1.6	2.4	2.6	2.6	1.2	1.7
Sports Activities	3.2	1.9	1.5	2.0	2.3	2.3	2.0	1.4
Camping	2.1	1.7	.9	1.6	1.6	1.8	1.9	1.3
Book/Magazine	2.7	4.1	3.3	2.7	3.7	4.8	3.2	3.2
Charity	1.9	3.1	2.6	2.2	2.8	3.0	1.7	1.4
Collection	1.8	1.8	1.1	1.6	1.8	2.5	2.3	1.4
Gourmet	2.2	2.6	2.6	2.1	2.6	3.1	2.5	1.5
Improve	1.9	1.8	1.4	1.5	[illegible].6	1.4	1.9	1.3
Plants, garden	1.4	2.1	1.8	1.8	1.9	2.0	1.8	1.3
Science Museum	2.4	2.5	4.7	2.9	2.0	3.2	5.1	1.6
Historic	2.7	4.1	2.9	3.0	4.0	5.3	4.6	1.7
Poetry	2.7	3.7	3.9	2.2	3.1	4.3	2.8	1.4
Art Fair	2.6	4.0	2.5	2.9	3.0	6.1	3.6	1.8
Class writing	3.1	2.6	3.2	1.9	2.4	3.3	2.4	1.5
Pottery	1.8	1.8	1.9	1.4	1.5	1.5	2.1	1.4
Weaving	1.2	1.8	1.7	1.6	1.4	2.4	1.6	1.4
Arts backstage	3.3	4.0	2.6	3.1	4.1	4.1	2.4	1.5
Music backstage	6.4	4.3	3.9	2.2	2.8	5.2	2.1	1.6
Creative writing	4.0	3.1	2.1	2.1	3.0	4.1	2.7	1.5
Make movies	2.2	2.2	1.7	1.9	2.0	2.0	2.1	1.5
Paint	2.6	2.1	2.0	1.6	1.9	2.3	2.5	1.4

* Entries can be read as follows: The probability of attending a live jazz performance among respondents who reported going out to a movie was 4.4 times higher than among respondents who did not report going out to a movie.

Jazz

In general, the recreational activities examined in this study do not seem very useful in predicting attendance of jazz performances. The best correlates which have only a moderate relationship with attendance of jazz performances, are creative writing, going to movies and doing backstage work at musical performances.

Classical Music

Several recreational activities have a moderate relationship with attending classical music performances. Those who visit non-art museums, who listen to or read poetry, who visit historical sites, who visit arts or crafts fairs, who do volunteer work, or who read books or magazines are somewhat more likely to attend classical music performances than those who do not engage in these activities.

Opera

None of the life-style activities was even a moderately strong correlate of opera attendance in Table 5.8. (Although the low correlations may be a function as well of the low frequency of opera attendance.) The highest odds ratios for opera are very similar to those found for classical music, visiting museums, historic sites, arts/crafts fairs, reading poetry, doing backstage work and going out to the movies.

Musicals

Several of the recreational activities were moderately strong correlates of attending live musicals. Persons who visit either science museums, arts or crafts fairs, historical sites, zoos, or the movies are somewhat more likely to attend than non-participants in these activities. Much the same assumptions are suggested by the odds ratio.

Non-Musical Plays

Many of the same recreational activities are moderate correlates of attendance at stage plays. Again, visiting science museums, historical sites, and arts and crafts fairs are moderate correlates of attendance at stage plays, as are reading or listening to poetry. Backstage work, movie attendnace and creative writing have relatively high odds-ratio relations with attending non-musical plays.

Ballet

None of the life style activities is a moderate correlate of attendance at ballet performances, although this again may be a function of the low proportion who go to the ballet. The odds ratios suggest much the same pattern of correlates for ballet as for the previous activities, but with associations with volunteer work, gourmet meal preparation and collection being higher for other arts activities.

Art Museums or Galleries

A number of recreational activities are at least moderate correlates of attendance at art museums or galleries. While visiting science museums or historical sites is strongly related to visiting art museums, going to arts or crafts fairs or visiting a zoo are also substantially related to such attendance. Other recreational activities that are moderately correlated include: attending the movies, jogging, reading books or magazines, doing charity work, preparing gourmet meals, reading or listening to poetry, writing literature, making photographs/movies/video tapes, and painting/drawing/sculpting/ printmaking. Much the same variables are highlighted by the odds-ratios mean.

Reading Literature

Again, many recreational activities correlate with increased participation. As might be expected, general reading is a very strong correlate. Visiting arts and crafts fairs, reading or listening to poetry, and visiting historical sites are also substantial predictors. The moderate predictors are numerous: going to the movies, going to sports events, visiting the zoo, playing games, jogging, engaging in sports activities, preparing gourmet meals, visiting science museums, and weaving/sewing. Have the odds ratios suggested a much lower degree of association with core arts participation, participants usually being less than twice as likely to read literature as non-participants.

To summarize, the degree to which recreational activities relate to arts attendance varies considerably. Virtually all of the recreational activities correlate positively with all of the core arts participation items, meaning again that the more one does each of these recreation activities, the more one participates in the arts. But some recreational activities correlate more highly than others in both Table 5.8 and Table 5.9. In both tables only one activity correlates with jazz attendance. The strongest correlates of attendance are visiting science museums, visiting historical sites, general reading, listening to poetry, visiting arts or crafts fairs and going out to the movies. While, even these activities generally have only a moderate correlation with attendance at arts events or with reading literature, participation is still generally associated with from two to six times as high a likelihood of arts participation as non-participation, in general being about three times as high.

In general, the recreational activities that relate least well to arts participation are going to amusement parks, outdoor activities like camping, working on stamp or other collections, doing home and auto repairs, gardening and plant care, potting and similar crafts. Still these recreational activities are related to up to twice as high levels of arts participation, averaging about 50% more participation.

Examined from the other perspective, from which arts activities are related to recreational activity, the one activity that stands out in both Tables 5.8 and 5.9 is opera, which has the weakest relationship with other recreation activities.

Recreational Dimensions: A second level of analysis examines whether involvement in our dimensions or clusters of recreational activities is associated with participation in the arts. In other words, we relate arts participation to certain combinations of activities suggested in the factor analysis.

The correlational data relevant to this analysis are presented in Tables 5.10 and 5.11. As in the previous section, the degree of activity on each dimension is measured by the simple index of recreational activities the respondent engaged in within that cluster of activities. The four indices used are those in our earlier analysis: activities at home, activities away from home, arts and crafts activities, and cultural activities.

Table 5.10: Arts Participation by Recreation (Life-Style) Indices (number of activities)
(Shown in Percentage of Attenders Above or Below the Average)

	Jazz	Classical Music	Opera	Musicals	Non-Musical Plays	Ballet	Art Museum	Reading	Arts Participation Index
Grand Mean*	9.5%	11.7%	2.8%	18.6%	11.8%	4.0%	21.9%	56.8%	0.8
Away from Home:									
0	-9.1	-11.4	-2.8	-18.3	-11.8	-3.6	-21.5	-52.1	-0.8
1	-8.5	-10.2	-2.7	-16.4	-10.7	-3.1	-19.1	-26.2	-0.7
2	-6.1	-8.1	-1.4	-12.7	-8.7	-2.8	-16.2	-19.9	-0.6
3	-6.9	-3.0	-0.3	-7.6	-4.9	-2.7	-11.7	-7.5	-0.4
4	-4.4	-1.8	0.3	-1.3	-1.1	-0.9	-4.5	-0.2	-0.1
5	-0.1	3.0	0.9	4.8	1.9	0.5	0.2	5.4	0.1
6	1.7	2.3	1.8	2.7	1.4	0.0	5.6	10.4	0.2
7	3.0	4.1	1.0	9.5	6.1	2.5	12.9	15.2	0.4
8	12.1	6.6	0.3	10.9	8.4	3.0	19.2	21.0	0.6
9	15.8	14.1	0.3	18.8	14.2	5.7	22.6	27.5	0.9
At Home:									
0	-5.1	-9.9	-2.0	-13.3	-8.7	-3.7	-16.7	-24.3	-0.6
1	-3.7	-6.8	-1.4	-7.6	-5.9	-2.0	-10.8	-12.4	-0.4
2	-1.4	-0.7	0.4	-0.2	-0.1	0.2	-1.6	3.2	-0.0
3	4.4	7.7	0.5	8.1	4.7	0.5	10.6	12.4	0.4
4	7.9	12.8	3.6	17.3	13.7	6.1	26.0	24.9	0.9
5	13.7	19.4	2.4	18.6	17.6	10.6	28.3	28.5	1.1
Grand Mean*	9.7%	11.9%	2.2%	19.1%	11.2%	3.6%	22.2%	57.2%	0.8%
Cultural Activities:									
0	-5.2	[illegible]	-1.8	-12.8	-8.2	-3.1	-18.8	-24.1	-0.6
1	-1.7	[illegible]	-0.2	-3.2	-3.8	-1.5	-9.2	3.9	-0.2
2	1.4	[illegible]	0.8	8.3	3.7	1.7	11.5	16.8	0.3
3	8.0	15.1	1.4	21.5	15.0	5.2	34.4	28.8	0.1
4	20.6	32.5	6.4	27.2	26.6	11.5	52.2	35.4	1.8
Arts-Crafts:									
0	-4.1	-5.8	-1.0	-6.3	-4.4	-2.1	-10.3	-15.0	-0.3
1	-0.5	1.3	0.1	3.3	1.2	0.7	2.5	9.7	0.1
2	5.8	8.8	2.0	6.1	5.0	1.2	11.6	17.1	0.4
3	8.3	9.7	1.4	7.2	7.9	3.5	22.9	25.0	0.6
4	22.9	20.7	2.5	24.8	17.7	9.3	47.2	32.5	1.5
5	33.9	24.2	6.0	33.7	18.4	16.4	44.5	40.2	1.8
6	25.3	49.0	13.6	39.2	47.1	25.6	43.6	42.9	2.4
7	37.7	88.1	-2.2	80.9	88.8	43.8	25.2	42.9	3.6

* Different grand means are due to differing survey months and to rounding error.

Table 5.10 shows the association between the number of activities on that dimension and the proportion of participation in each of the arts activities. Data are presented in terms of deviation from the total proportion for each of the arts. Table 5.11 shows the same associations, adjusted for nine demographic variables by MCA. These associations indicate to what extent variations in arts participation can be attributed to background factors, rather than to a particular set of activities. As in Table 5.11, the data are shown in terms of deviations below and above the average proportion for the entire sample after adjustment. We will here confine our discussion to these adjusted figures (which are about one-half to two-thirds the range of the unadjusted figures). Thus, the -7.2 entry for jazz in Table 5.10 for the 0 Activity group means that 7.2% sould be subtracted from the overall 9.5% percentage rate for the entire sample, leaving the proportion participating in the 0 Activity group as 2.3% -- a very low rate in comparison to the 12.5 + 9.5 = 22% rate for those doing all nine away-from-home activities.

Jazz

Attendance at jazz music performances relates positively to greater involvement in all of the dimensions. In each case (activities away from home or at home; cultural activities and arts-crafts), the larger the number of activities, the greater the deviation above the mean in terms of attendance. Thus, in contrast to those who engage in none of the away-from-home activities (7.2% below average) were those involved in nine such activities are 12.5% above the mean in attendance. Other dimensions show the same pattern of association; with the arts and crafts index showing a stronger association, with a difference of over 25 percentage points

Table 5.11: Participation in Arts by Life Style (number of activities)
Adjusted for Selected Background Factors:
Percentage of Attenders Above or Below the Average.

	Jazz	Classical Music	Opera	Musicals	Non-Musical Plays	Ballet	Art Museum	Reading	Participation Index
Grand Mean*	9.5%	11.7%	2.8%	18.6%	11.8%	4.0%	21.9%	56.8%	0.8
Away from Home:									
0	-7.2	-5.3	-1.3	-12.7	-7.3	-0.7	-11.8	-41.4	-0.5
1	-5.4	-5.7	-1.5	-12.2	-6.9	-1.0	-11.7	-19.2	-0.5
2	-3.7	-4.8	-0.7	-9.7	-6.0	-1.3	-11.3	-15.9	-0.4
3	-5.0	-1.7	-0.2	-6.8	-3.6	-2.2	-9.5	-5.9	-0.3
4	-3.3	-1.6	0.1	-1.9	-1.2	-1.1	-4.6	-1.3	-0.1
5	-0.1	2.4	0.8	4.1	1.9	0.3	-0.6	4.1	0.1
6	0.6	0.4	1.5	0.9	-0.1	-0.7	3.1	7.9	0.1
7	1.0	2.3	0.5	8.1	4.6	1.5	9.5	12.6	0.3
8	9.6	3.4	-0.3	8.5	5.6	1.7	14.1	17.3	0.4
9	12.5	9.1	-0.6	15.2	10.2	3.8	14.9	21.5	0.7
At Home:									
0	-1.6	-4.7	-1.0	-3.4	-2.6	-2.2	-6.8	-4.2	-0.2
1	-1.5	-3.9	-0.9	-3.0	-2.7	-0.6	-5.6	-5.4	-0.2
2	-1.4	-0.7	0.4	-0.7	0.2	0.4	-1.9	1.1	-0.0
3	2.0	4.3	-0.2	2.0	0.7	-0.8	4.4	2.5	0.1
4	3.6	7.1	2.6	8.0	7.2	3.8	15.6	9.0	0.5
5	8.4	11.9	1.3	6.4	8.7	7.8	15.0	9.5	0.6
Grand Mean*	9.7%	11.9%	2.2%	19.1%	11.2%	3.6%	22.2%	57.2%	0.8
Cultural Activities:									
0	-3.1	-6.1	-1.2	-7.9	-4.8	-1.7	-14.2	-15.0	-0.4
1	-1.1	-2.8	-0.1	-2.7	-2.9	-1.5	-8.7	2.4	-0.2
2	0.1	3.1	0.5	5.1	1.5	1.1	8.6	10.9	0.2
3	5.0	9.9	0.5	14.9	10.1	3.2	28.2	18.5	0.7
4	14.3	21.9	6.4	15.2	17.0	7.3	41.6	19.7	1.2
Arts-Crafts:									
0	-2.6	-1.8	-0.3	-0.9	-0.7	-0.4	-2.7	-4.8	-0.1
1	0.0	-0.9	-0.3	0.4	-0.2	-0.3	-0.4	3.7	-0.2
2	3.4	3.9	1.1	-0.7	0.2	-0.6	1.4	4.4	0.1
3	3.7	3.7	0.6	-0.6	2.0	1.2	9.3	8.8	0.2
4	15.3	8.3	0.5	8.6	4.6	5.2	21.9	7.9	0.7
5	24.2	10.6	3.2	18.4	4.8	11.2	15.1	15.2	0.8
6	16.8	31.8	10.5	20.8	30.0	19.9	13.9	12.5	1.4
7	22.6	58.5	-9.6	59.3	64.1	33.5	-23.4	6.9	2.0

Control factors are income, SMSA, age, ethnicity, sex and employment, education, marital status, number of children and number of work hours.

* Different grand means are due to differing sampling months and to rounding error.

between the lowest and highest number of activities.

Classical Music

Attendance at classical music performances is also related to more involvement on all four indices but in varying degrees of strength. For the away-from-home recreational activities the range of attendance between lowest and highest involvement is over 14%; for at-home activities, it is about 16%. But for cultural activities and arts/crafts, the associations are much stronger with a spread of 28% and over 60% respectively between those with no lowest and highest participation scores on the index.

Opera

The relationships between recreational indices and opera attendance are generally weaker than for jazz or classical music performances. Both at-home and away-from-home activities show relatively small deviations from the mean. Involvement in cultural activities has some association with attendance while arts/crafts show an association which actually reverses at the highest level (7) of activity, although there are relatively few respondents involved.

Musicals or Operettas

More regular and positive associations are found between all four indices and attendance at musicals. The association is strongest for arts-crafts which shows a range from 1% below the mean (no activities) to 59% above the mean, for those engaging in seven arts-crafts activities. The other dimension show similarly consistent patterns but the associations are not as strong. As will be found with non-musical stage plays (below), attendance is more strongly related to away-from-home recreational activities than to at-home activities.

Stage Plays

Attending non-musical stage plays is also associated with each recreational dimension in varying degrees of strength. The following figures show the range of deviation from the mean between those with no involvement and those with highest involvement on each dimension:

Away-from-home	17.5 percentage points
At-home	11.3
Cultural activities	21.8
Arts/crafts	64.8

Once again involvement on the arts-crafts activity index shows the strongest association with arts attendance in the case of plays.

Ballet

Once again, the arts/crafts dimension is the major predictor of attending the ballet with 38% of those reporting all seven arts-crafts activities going to the ballet compared to less than 4% of those reporting no arts-crafts activities. For ballet, participation in at-home activities relates more consistently with attendance than participation in away-from-home activities, which shows lowest ballet attendance for those with intermediate amounts of away-from-home activities. This pattern stands in contrast to musical and non-musical theatre where away-from-home activities correlated more strongly.

Art Museums or Galleries

Here the relations with the arts-crafts index are lower than for the other three dimensions (activities at-home, away-from-home, and cultural activities). The strongest association is with cultural activities, with a range of over 55% between those with least and most involvement. It will be remembered that cultural activities include visits to non-art museums, suggesting considerable overlap in visits to both art and non-art museums.

Reading Literature

Reading literature is strongly associated with all four recreation indices, but particularly for the away-from-home activities -- which is surprising in the sense that such reading is usually done at home and not away from home. The relation with the arts-crafts index shows some inconsistencies in the overall relation unlike the case for most other arts activities.

Briefly, fuller involvement in each recreational dimension (as measured by participation in a greater number of activities on each dimension) is generally associated with more participation in each of the arts. Moreover, this pattern is maintained after controlling for a series of nine background variables (Table 5.11). People who report themselves as more active in any cluster of recreational and leisure-time activities are also more likely to report attending arts events -- and reading serious forms of literature. The "arts/crafts" dimension (which involves a relatively small percentage of the population) is a particularly strong predictor of participation in the arts.

These relations are summarized conveniently in the final columns of Tables 5.10 and 5.11, which show differences in the overall index of arts participation (with the average score of .8 as described in Chapter 3) by each of the four recreation "life-style" indices. It can be seen in Table 5.11 that arts participation rises quite regularly and consistently for all four recreation indices. Consistent with the pattern of results noted above, the differences in participaion are sharpest for the arts-crafts dimension, then for the cultural visits dimension, then for the away-from-home and at-home dimensions. In general, the range of adjusted differences in Table 5.11 is only one-half to two-thirds as large as the range of unadjusted differences found in Table 5.10. That rough rule-of-thumb probably should be applied to the other adjusted figures we have examined in this chapter.

SUMMARY

Several findings about recreational and cultural activities have emerged in this chapter. The extent of adult involvement in a series of 26 separate activities ranged considerably from a high of 84% who read books or magazines to a low of 1% for those doing "backstage" work for jazz and classical music performances.

Involvement in these activities varies among sub-groups of the population; the better educated, those from wealthier households, and younger adults are typically most likely to engage in each recreational activity generally, with education being the single strongest predictor. Even after adjustment for other demographic variables, education emerges as the strongest explanatory factor for involvement in recreational and leisure-time activities -- much as was true for the core arts participation questions in Chapter 3.

In addition to considering these activities individually, we determined how responses formed into dimensions or clusters of activities which tend to be associated with each other. These were used to construct indices of leisure "life-styles". Five clusters of activities were identified and these were classified into four broad categories: activities carried on at home; those occurring away from home; cultural activities and arts and crafts activities. An analysis of population sub-groups again revealed that the better-educated, the more affluent and younger adults were more likely to participate in each of these life-styles based on sets of recreational activities.

The final sections of this chapter examined the relationship between arts participation and each recreational activity and these four dimensions of recreational life-styles. Certain recreational activities emerged as moderate correlates of arts participation -- particularly visiting (non-art) museums; historic sites and arts-crafts fairs; general reading and readings of poetry; and attending movies. However, almost all recreational activities were related to more arts participation, and few distinct clusterings of recreational activities and arts activities were found.

When recreational activities were clustered into general life-style indices, they again emerged as successful predictors of arts participation; the greater the involvement on all four dimensions (as measured by number of activities), the greater the likelihood of participation in the arts. The index of arts and crafts participation was particularly strong in its predictive ability. These associations were maintained when controls on background factors are introduced.

Chapter 6

ARTS PARTICIPATION VIA THE MASS MEDIA

The mass media make art performances available to the general public on a scale far beyond that of live performances or art events. Television, radio, and recordings can transmit the arts from a public setting to more private settings. Performances in New York, Milan, or New Orleans can be enjoyed in one's own home or car or even at the beach. In order to assess the nature and extent of arts participation through the mass media, respondents were asked a series of questions on this subject (Table 6.1).

This chapter examines respondents answers to these mass media questions (aggregated for the three months -- June, November, and December for which they were asked). The following questions are also treated by further analyses of the responses:

1) What is the extent of public participation in each of the arts via each of three mass media? What are the relative sizes of the arts audiences reached through the mass media? How do the sizes of the audiences compare to those or attendance of the same arts?

2) Do people with certain background characteristics have higher rates of participation in the arts via the mass media?

3) Can patterns be discerned between the use of specific mass media and participation in particular arts? Does participation tend to be organized around a specific medium for a variety of arts or around a variety of media for a particular art? For example, are respondents more likely to follow several arts through recordings or follow jazz through several media?

4) Do people of different backgrounds rely on a broader range of mass media to participate in a particular art? Blacks may be more likely to listen to jazz via the radio, but are blacks or whites several types likely to follow jazz through more types of media?

Are these differences better accounted for by other factors?

5) Do people of different backgrounds participate in varying numbers of arts through television, radio, or recordings? Are these difference better accounted by other factors?

6) How does media exposure influence attendance of public performances? Media exposure could either substitute for or supplement attendance of live art performances.

7) Are people who participate in the arts through more media channels also more likely to attend art performances?

1) MASS MEDIA QUESTIONS AND RESPONSES

The survey included questions to determine the usage of mass media during the last 12 months for arts presentation--jazz, classical music, opera, musicals, non-musical stage plays, ballet, and art displays. The mass media included television, radio, and audio recordings (tapes or records). Media participation in non-musical plays was restricted to radio and television; media participation in ballet and the visual arts was restricted to television.

In addition to these questions about the specific use of the media for arts participation, an additional question was asked about the extent of the respondents' daily television viewing. This question provides a better perspective as to whether television viewing facilitates or inhibits attendance at arts performances. It also makes it possible to see whether greater viewing of television is related to the use of the medium for arts events.

Table 6.1 shows the exact wording of the questions as well as the responses for them. For example, of the 4037 respondents, 708 watched a jazz performance on television and 3315 did not; no data was available for 14 respondents. Question 14, which has a unique format indicates that 226 respondents reported watching television less than half an hour per day, 745 respondents reported watching one hour per day, 1040 respondents (the mode) reported watching two hours per day, etc.

Figure 6.1: Number of Respondents Using Media for Arts Content

-4-

MEDIA PARTICIPATION

14. Approximately how many hours of television do you watch on an average day?

0= 226	6=199
1= 745	7= 44
2=1040	8= 76
3= 755	9= 11
4= 551	10= 43
5= 274	11= 47

______ **Number of hours**

0 ☐ **None/Don't watch television**

15a. During the LAST 12 MONTHS, did you watch a jazz performance on television?

0 ☐ **No** 8315

1 ☐ **Yes** 708 NA= 14

b. (During the LAST 12 MONTHS,) Did you listen to a jazz program on radio?

0 ☐ **No** 3316

1 ☐ **Yes** 697 24

c. (During the LAST 12 MONTHS,) Did you listen to jazz records or tapes?

0 ☐ **No** 3206

1 ☐ **Yes** 781 50

16a. During the LAST 12 MONTHS, did you watch a classical music performance on television?

0 ☐ **No** 3013

1 ☐ **Yes** 1009 15

b. (During the LAST 12 MONTHS,) Did you listen to a classical music program on radio?

0 ☐ **No** 3211

1 ☐ **Yes** 794 32

c. (During the LAST 12 MONTHS,) Did you listen to classical music records or tapes?

0 ☐ **No** 3109

1 ☐ **Yes** 881 47

17a. During the LAST 12 MONTHS, did you watch an opera on television?

0 ☐ **No** 3524

1 ☐ **Yes** 499 14

b. (During the LAST 12 MONTHS,) Did you listen to an opera music program on radio?

0 ☐ **No** } *Go to 17c* 3715

1 ☐ **Yes** } 282 40

17c. (During the LAST 12 MONTHS,) Did you listen to opera music records or tapes?

0 ☐ **No** 3710

1 ☐ **Yes** 304 23

18a. During the LAST 12 MONTHS, did you watch a musical stage play or an operetta on television? Exclude movie versions of musical plays and operettas.

0 ☐ **No** 3189

1 ☐ **Yes** 824 24

b. (During the LAST 12 MONTHS,) Did you listen to a musical stage play or an operetta on radio?

0 ☐ **No** 3836

1 ☐ **Yes** 171 30

c. (During the LAST 12 MONTHS,) Did you listen to a musical stage play or an operetta on records or tapes?

0 ☐ **No** 3653

1 ☐ **Yes** 347 37

19a. During the LAST 12 MONTHS, did you watch a non-musical stage play on television? Do not include movies, situation comedies, or TV series.

0 ☐ **No** 2979

1 ☐ **Yes** 1040 18

b. (During the LAST 12 MONTHS,) Did you listen to a radio performance of a non-musical stage play?

0 ☐ **No** 3836

1 ☐ **Yes** 158 43

20. (During the LAST 12 MONTHS,) Did you watch a ballet program on television?

0 ☐ **No** 3344

1 ☐ **Yes** 670 26

21. During the LAST 12 MONTHS, did you watch a television program dealing with art galleries or things in art museums?

0 ☐ **No** 3088

1 ☐ **Yes** 920 29

2) POPULATION ESTIMATES FOR MEDIA PARTICIPATION IN THE ARTS

After the sample is weighted to correct any discrepancies in proportions of age, sex, and race, the distribution of responses can be generalized to the U.S. adult population. Table 6.2a presents these estimated percentages of the population participating in the arts through the media, while Table 6.2b translates these percentages into numbers of adults in the U.S. population. For purposes of comparison, the population estimates of those attending live performances are also presented in the first table.

Reading across Table 6.2a provides a comparison of the proportion of the adult public who use one medium to participate in various arts. Classical music, plays, and art exhibits draw the largest audiences on television; jazz and classial music attract the largest audiences via radio as well as through recordings. (The comparisons are not entirely parallel since not all art activities are distributed through each of these media.)

On the other hand, reading down the columns of Table 6.2a indicates the proportion of the public reached by each medium for each art. Each of the three media reaches a jazz audience of about one-fifth of the adult public or an audience roughly double that of recent attendees of live jazz performances. A fifth to a quarter of U.S. adults participate in classical music through each of the media (not necessarily the same individuals through each media), which is also about twice the audience size of recent attenders of a live performance. The opera audience via either radio or recordings is about two-thirds that of opera's television audience, which is four times as large as the audience of recent live performances. Two to four times as many people follow musicals on television as on radio or recordings, an audience size which is only somewhat greater than that of

Table 6.2a: Estimated Percentages of U.S. Adults Participating in the
Arts via TV, Radio and Recordings
(Data weighted to Reflect U.S. Adult Population)

	Jazz	Classical Music	Opera	Musicals	Plays	Ballet	Art Museums
Via TV	18.0%	24.8	12.0	20.4	26.0	16.4	22.8
Via Radio	18.0	20.0	7.2	4.4	3.6	NA	NA
Via Records/ tapes	20.0	22.0	7.6	8.4	NA	NA	NA
(Attended)	(9.6)	(13.0)	(3.0)	(18.7)	(11.9)	(4.0)	(22.1)

Table 6.2b: Estimates of U.S. Adults Participating in the
Arts via TV, Radio and Recordings (in thousands)
(Data weighted to Reflect U.S. Adult Population)

	Jazz	Classical Music	Opera	Musicals	Plays	Ballet	Art Museums
Via TV	29,724	40,604	19,776	33,384	42,568	26,820	37,344
Via Radio	29,740	32,660	11,576	7,096	6,248	NA	NA
Via Records/ Tapes	32,928	36,100	12,228	13,668	NA	NA	NA

live musicals. Similarly, a much larger audience follows ballet on television than at live performances. Finally, the number of people who visit art exhibits is approximately equal to the television audience for discussion and presentations of visual art. In short, television usually captures a larger audience for the arts than do other media or live "core" art performances.

The percentage of respondents who estimated the number of hours spent watching television is presented in Table 6.2c. (The percentages reflect corrective weightings for age, sex, and race to approximate the U.S. population more accurately.) Based on the respondents' reports of their viewing habits, half of American adults watch two or fewer hours of television per day, while a sizeable proportion--almost a third--watches four or more hours per day, and only a very small proportion watch less than a half hour per day. Television viewing has truly become an ingrained part of the everyday leisure activities of the American public.

Table 6.2c: Percentage of U.S. Adults Watching TV Various Numbers of Hours on an Average Day

		Cumulative
0 hours	5.6%	5.6%
1	18.4	24.0
2	26.0	50.0
3	18.8	68.8
4	13.6	82.4
5	6.8	89.2
6	4.8	94.0
7	1.2	95.2
8+ hours	4.8	100.0

3) BACKGROUND DIFFERENCES IN MEDIA USAGE

Media usage varies among sub-groups based on background factors such as income, age, ethnic-race, gender, and education. Table 6.3 presents these variables as predictors of media usage, while Table 6.4 shows the same associations for each variable after adjustment for the impact of the other four variables as well as five additional background factors (SMSA location, marital status, work, number of children, and work hours). Through comparing the two tables, the most important predictors and explanatory factors of participation in the arts via the mass media.

The most important predictor of participating in the arts through the media is typically educational level. (The exceptions to this are opera through all three media and jazz through records.) The other predictors fluctuate in importance, but gender is almost always the poorest predictor. The more important relationships for arts participation through the mass media are discussed below.

Amount of Television Viewing

The number of hours of viewing television generally decreases with higher age and education levels, but most of the variation within income can be accounted for by associated background variables. Both younger and older individuals are likely to spend more time viewing television than average, but much of the difference in the higher rate for older individuals is attributable to other factors. Males are slightly less likely to watch more hours than females, but this difference essentially disappears if other variables are held equal. Blacks are markedly more likely than the average to watch television, while "other" races are markedly less likely than average. Only half of the greater than average rate for black

Table 6.3a: Arts Participation Via Media By Background Factors: Average Number of TV Hours and Percentages of Respondents Above or Below the Grand Mean.

	Watched Jazz on TV	Listened to Jazz on Radio	Listened to Jazz on Records	Watched Class Mus. on TV	Listened to Class Mus. on Radio	Listened to Class Mus. on Records	TV Hours Watched Per Day
Grand Mean:	18.1%	18.3%	20.2%	20.7%	20.1%	22.2%	2.95
Income:							
Under $10,000	-5.3	-2.3	-6.9	-9.5*	-8.2	-11.3	.62
$10,000 - $14,999	-6.3	0.3	-5.7	-5.9	-5.5	-8.2	.41
$15,000 - $19,999	-3.5	-2.2	-3.3	-4.2	-5.5	-3.9	.17
$20,000 - $29,999	1.8	0.7	2.0	1.3	0.7	1.5	.07
$30,000 - $49,999	3.5	1.1	4.1	5.8	5.1	5.5	-.48
$50,000 and over	8.3	2.1	9.9	15.0	19.5	15.[illegible]	-.53
Not ascertained	3.9	0.4	1.6	1.6	3.6	6.5	-.35
Age:							
18-24	0.1	6.8	6.9	-4.5	-7.9	-6.1	.22
25-34	5.0	7.7	8.0	1.3	2.2	3.7	-.09
35-44	-1.0	-2.0	-2.1	-1.1	4.6	3.1	-.51
45-54	0.9	-1.5	-0.8	4.4	3.2	3.6	-.19
55-64	1.9	-4.2	-4.5	1.8	2.6	3.8	.04
65-74	-5.7	-10.2	-10.2	0.4	-2.8	-5.7	.47
75-96	-14.6	-16.4	-18.8	-3.4	-7.1	-12.7	[illegible]
Ethnic-Race:							
White, Other Origin	-1.8	-2.3	-1.8	-1.0	0.1	1.3	-.06
British Isles White	2.1	-1.8	-2.5	4.2	1.5	4.0	.00
W. Europe White	-1.3	-3.2	-1.5	1.5	-0.5	-2.0	-.16
E. Europe White	-2.1	-1.7	1.2	11.9	11.0	12.2	-.03
Hispanic	-1.1	0.1	-0.5	-1.9	-0.4	-6.4	.00
Black (ex. Hispanic)	9.9	18.3	16.7	-2.5	-4.2	-10.0	.66
Other Races	3.0	4.7	0.5	-1.4	8.4	8.6	-.58
White (unknown origin)	-5.7	-6.8	-17.0	-2.6	-13.4	-6.0	-.06
Sex:							
Male	1.6	2.2	1.2	-1.5	0.5	-0.9	-.21
Female	-1.4	-1.9	-1.0	1.3	-0.5	0.8	.19
Education:							
Grade school	-13.1	-10.9	-15.6	-11.4	-11.2	-15.9	.26
Some high school	-7.9	-6.6	-8.4	-11.4	-6.4	-12.1	.77
High school graduate	-1.4	-2.1	-2.9	-2.6	-6.6	-6.3	.25
Some college	3.5	3.0	5.4	5.9	1.1	4.5	-.31
College graduate	8.0	9.1	12.2	9.1	19.7	20.5	-.71
Graduate school	17.8	16.0	18.9	19.5	31.2	33.3	-1.04

viewing seems due to race per se.

Jazz

Watching jazz on television is more frequent among the better educated and more affluent. However, most of the differences among income groups is due to associated background factors such as education. Those aged 25-34 are most likely to watch jazz on television but, when other background factors are controlled, the 55-64 year group emerge as the most frequent viewers of jazz on television. Among all ethnic-racial groups, blacks are most likely to watch jazz on television, a rate which is slightly depressed when other factors are held equal.

Those with higher incomes are only slightly more likely to listen to jazz on the radio. The rate of listening to jazz on the radio increases fairly strongly with rising education levels, but drops with rising age levels. Women are slightly less likely to listen to jazz on the radio than are males. The rate of listening to jazz on the radio for blacks is notably the highest.

Listening to jazz on recordings increases with higher income and education levels, but gradually decreases, however, with age. Women and men do not significantly differ in rate of listening to jazz recordings. As is the case television and radio, blacks are also the group most likely to listen to jazz recordings.

Classical Music

Watching classical music on television is more prevalent among those in higher income brackets, but most of the differences are attributable to other factors, most likely education. Younger groups are least likely to

Table 6.4a: Arts Participation Via Media By Background Factors, Adjusted for Influence of Other Background Factors: Average Number of TV Hours and Percentage of Respondents Above or Below the Grand Mean.

	Watched Jazz on TV	Listened to Jazz on Radio	Listened to Jazz on Records	Watched Class Mus. on TV	Listened to Class Mus. on Radio	Listened to Class Mus. on Records	TV Hours Watched Per Day
Grand Mean:	18.1%	18.3%	20.2%	20.7%	20.1%	22.2%	2.95
Income:							
Under $10,000	-4.6	-2.0	-8.8	-8.4	-3.6	-5.6	.11
$10,000 - $14,999	-4.4	3.1	-4.0	-3.9	-1.5	-2.6	.13
$15,000 - $19,999	-2.0	-0.8	-1.3	-2.3	-2.5	-0.5	.05
$20,000 - $29,999	1.2	0.2	1.6	1.3	0.6	1.1	.12
$30,000 - $49,999	2.5	-0.7	3.3	4.2	1.5	0.7	-.19
$50,000 and over	4.2	-2.4	6.5	8.1	7.2	3.4	-.08
Not ascertained	4.0	1.0	1.8	0.9	2.0	4.5	-.25
Age:							
18-24	-2.3	2.9	0.4	-3.5	-7.7	-6.7	.28
25-34	2.0	6.0	7.2	-1.2	-1.2	-0.2	.07
35-44	-2.7	-1.1	-1.3	-3.9	2.8	1.0	-.30
45-54	1.5	-0.4	-0.4	4.6	3.5	5.0	-.08
55-64	4.2	-1.9	-2.5	3.3	4.6	5.9	-.04
65-74	-0.1	-7.3	-5.6	3.8	1.2	-1.0	-.09
75-96	-6.5	-12.6	-11.3	2.0	-0.2	-5.3	.11
Ethnic-Race:							
White, Other Origin	-1.8	-2.2	-2.0	-1.0	0.2	1.1	-.05
British Isles White	0.9	-1.7	-3.1	1.3	-2.1	0.6	.07
W. Europe White	-1.6	-2.8	-1.2	1.3	-0.3	-2.1	-.10
E. Europe White	-2.9	-0.5	2.1	8.2	7.4	9.9	-.06
Hispanic	1.4	-0.3	1.6	1.6	4.5	-1.1	-.13
Black (ex. Hispanic)	11.1	17.6	17.2	0.2	-1.1	-5.5	.48
Other Races	-0.9	0.3	-5.6	-6.5	-0.2	[illegible]	-.27
White (unknown origin)	-2.0	-2.9	-12.7	2.7	-8.1	-0.3	-.15
Sex:							
Male	1.6	2.4	0.3	-2.0	-1.7	-1.8	-.01
Female	-1.4	-2.1	-0.3	1.8	1.5	1.5	.01
Education:							
Grade school	-11.4	-7.1	-9.3	-11.3	-11.1	-13.1	-.10
Some high school	-6.9	-5.0	-4.5	-10.7	-7.3	-10.6	.53
High school graduate	-1.4	-2.1	-3.0	-2.2	-5.8	-6.0	.22
Some college	3.3	1.6	3.0	6.9	2.2	4.4	-.22
College graduate	6.6	7.1	8.8	7.6	17.4	18.4	-.45
Graduate school	16.1	14.2	15.2	15.4	26.2	28.6	-.60

watch classical music on television; those aged 45-64 are most likely to watch. Gender differences in this case are small, with men slightly higher than women. Whites of East European descent are most likely, and blacks least likely, to watch classical music on television. The rate of watching rises strongly with educational level.

Both increased levels of income and education are associated with greater likelihood of listening to classical music on the radio, but much of the strength of income as a predictor is due to other associated factors, again, educaion is the probably explanatory variable. The young and the old are less likely to listen to this music on the radio, but the low rate for the elderly (over 65) is due largely to other factors. Whites of East European descent are the most likely, while whites of unknown ethnicity are the least likely, to listen to classical music on the radio.

Just as in radio and television consumption, listening to classical music recordings has a strong positive relationship to education and, to a lesser extent, to income. Again, in contrast to education, the strength of income as a predictor is largely attributable to other associated factors. Classical recordings are most popular among those aged 25-64, but, other with factors held equal, these recordings gain increased popularity with age until there is a drop among those aged 65-74. Males are slightly less likely than females to listen to classical recordings. Whites of East European descent and "other" races are notably more likely to listen to classical recordings, while blacks have a markedly lower rate. However, if the influence of other background factors are removed, blacks and whites of East European descent are the only ethnic-racial groups that markedly diverge from the national average.

Opera

Watching opera on television becomes more common in groups with higher income, but much of this difference is due to other related factors. It is also more frequent as age increases, peaking with those aged 45-64. Moreover, the effect of age is diminished by other factors-- those over 45 are much more likely to watch opera on television than those younger if adjustments are made for other background variables. Whites of East European descent and "other" races are also more likely to watch opera on television. Females are only slightly more likely to watch than males. Education is the strongest of these predictors for watching opera on television, even though this relationship is somewhat suppressed when adjusting for other factors. In this case, age, income and education all associated with each other explain most of the variation.

Listening to opera on the radio is noticeably more common among those with incomes greater than $50,000, but most of this difference is due to other factors such as age and education. It is also more frequent among persons over 44 years old, whites of East European descent, and adults with higher education levels.

Those with higher incomes and educational levels are more likely to listen to classical music recordings, but once again the differences by income are largely attributable to other factors. The rate of listening to these recordings increase until the ages of 55-64, and then drops sharply. Whites of East European descent are considerably more likely than the average to listen to classical music recordings, while Hispanics and blacks are least likely to listen.

Musicals

Table 6.3b: Arts Participation Via Media By Background Factors: Percentage of Respondents Above or Below Grand Mean.

	Watched Opera on TV	Listened to Opera on Radio	Listened to Opera on Records	Watched Musicals on TV	Listened to Musicals on Radio	Listened to Musicals on Records	Watched Plays on TV	Listened to Plays on Radio
Grand Mean:	12.1%	7.2%	7.6%	20.6%	4.5%	8.5%	26.4%	3.8%
Income:								
Under $10,000	-5.0	-2.0	-4.3	-9.5*	-0.9	-4.1	-13.3	-0.1
$10,000 - $14,999	-4.1	-1.9	-3.3	-5.8	-2.0	-4.1	-7.7	0.2
$15,000 - $19,999	-2.7	-0.8	-1.2	-4.1	-0.8	-3.7	-5.9	-0.7
$20,000 - $29.999	1.1	-0.8	0.3	1.3	-0.4	-0.3	1.8	0.3
$30,000 - $49,999	2.9	0.9	1.7	5.7	0.1	4.1	7.5	0.8
$50,000 and over	12.0	7.5	5.8	15.1	7.0	11.9	28.3	-1.7
Not ascertained	0.8	3.4	4.1	1.8	3.5	2.4	-0.3	-1.0
Age:								
18-24	-6.6	-3.0	-4.5	-4.6	-2.1	-1.7	-4.7	0.7
25-34	-3.8	-1.2	-2.3	1.3	-0.1	-1.2	3.0	0.9
35-44	0.7	-1.1	1.2	-1.0	0.4	2.2	1.5	-0.5
45-54	6.3	4.6	4.0	4.3	3.6	5.4	4.6	0.3
55-64	6.5	2.4	4.9	2.0	-0.4	1.2	0.5	-0.7
65-74	1.6	0.5	0.1	0.3	-1.1	-3.8	-2.8	-1.1
75-96	1.3	-0.2	-0.6	-3.4	-0.3	-5.6	-9.1	-1.5
Ethnic-Race:								
White, Other Origin	-0.1	0.2	-0.1	-0.9	-0.3	0.7	-0.4	0.4
British Isles White	-0.4	-1.6	2.1	3.9	-0.6	3.3	5.6	1.3
W. Europe White	-0.2	-0.8	0.8	1.1	-0.3	0.5	3.6	-1.4
E. Europe White	14.8	13.8	11.1	12.3	4.4	3.8	19.2	-0.3
Hispanic	-1.8	-1.7	-4.2	-1.6	-0.1	-4.9	-11.2	2.6
Black (ex. Hispanic)	-2.7	-1.5	-3.6	-2.6	0.4	-6.4	-7.2	-1.0
Other Races	7.5	4.9	0.8	-1.3	3.7	0.9	-4.6	-1.6
White (unknown origin)	6.7	-3.7	-2.4	-2.5	0.8	-1.8	-2.6	-2.1
Sex:								
Male	-1.6	0.1	-0.3	-1.5	0.3	-1.2	-0.7	-0.1
Female	1.4	-0.1	0.3	1.3	-0.2	1.1	0.6	0.1
Education:								
Grade school	-7.8	-3.0	-4.8	-11.4	-3.3	-6.5	-19.6	-2.9
Some high school	-4.3	-2.9	-4.1	-11.5	-1.2	-5.7	-14.7	-1.5
High school graduate	-1.6	-3.0	-1.2	-2.6	-1.6	-3.3	-3.1	-0.7
Some college	2.1	1.5	0.2	6.0	0.5	0.4	5.8	1.0
College graduate	6.4	6.4	7.7	9.6	4.7	13.2	17.2	1.6
Graduate school	11.3	11.0	10.1	18.8	6.8	15.4	27.3	5.2

Watching musicals on television is considerably more common among those with higher incomes (about half of the variation is due to other factors) and among those with higher education levels. The youngest and oldest groups are least likely to watch, while those aged 45-54 are most likely to watch. When other factors are controlled those over 45 years old are more likely than younger groups to watch musicals on television. Females are slightly more likely to watch than are males, particularly when other factors are held equal. Whites of East European and British Isles ancestry also watch musicals more than average; "other" races would watch at a much lower rate than the average if it were not for background factors associated with higher participation.

Few groups deviate much from the average in terms of listening to musicals on the radio. Those earning over $50,000, those aged 45-54, whites of East European descent and "other" races are the exceptions--each of these groups is clearly more likely than the average to listen to musicals on the radio. (The greater propensity does not hold for "other" races after adjustments for the impact of other factors.) Moreover, higher levels of education are clearly associated with higher rates of listening.

Those in higher income brackets or educational levels are more likely to listen to musicals on recordings. The likelihood of listening to recordings also rises with age, but begins to drop among those aged 55-64. Whites of East European origins are most likely to listen to musicals on records, while Hispanics and blacks (as well as "other" races if other factors are held equal) are the ethnic-racial groups least likely to listen. Females are slightly more likely than males to listen to recordings of musicals, but genderis not a major factor here.

Table 6.4b: Arts Participation Via Media By Background Factors, Adjusted for Influence of Other Background Factors: Percentages of Respondents Above or Below the Grand Mean.

	Watched Opera on TV	Listened to Opera on Radio	Listened to Opera on Records	Watched Musicals on TV	Listened to Musicals on Radio	Listened to Musicals on Records	Watched Plays on TV	Listened to Plays on Radio
Grand Mean:	12.1%	7.2%	7.6%	20.6%	4.5%	8.5%	26.4%	3.8%
Income:								
Under $10,000	-3.7	-0.4	-2.1	-8.4	-0.2	-0.3	-6.8	0.8
$10,000 - $14,999	-2.6	-0.4	-1.4	-3.7	-1.0	-0.8	-2.7	0.8
$15,000 - $19,999	-0.9	0.8	0.6	-2.2	-0.0	-1.8	-2.7	-0.4
$20,000 - $29,999	1.2	-0.8	0.2	1.2	-0.4	-0.4	0.8	0.1
$30,000 - $49,999	1.7	-0.6	-0.2	4.0	-0.7	1.2	3.0	0.4
$50,000 and over	5.2	2.2	0.4	8.2	3.8	2.7	17.1	-3.7
Not ascertained	-0.7	2.5	3.2	1.3	3.3	1.6	-1.5	-1.0
Age:								
18-24	-5.6	-5.0	-4.5	-3.6	-0.2	-1.6	-5.4	-0.6
25-34	-6.1	-2.9	-4.4	-1.3	-1.0	-3.7	-0.3	0.2
35-44	-1.6	-1.6	-0.5	-3.6	-0.0	1.6	-0.7	-0.7
45-54	6.9	5.6	4.7	4.6	-0.4	6.4	4.7	1.3
55-64	7.9	4.2	6.1	3.6	-0.7	2.6	2.5	0.1
65-74	4.0	3.1	2.8	3.5	3.8	-1.6	1.9	0.0
75-96	5.9	3.8	3.[illegible]	1.8	3.3	-2.7	-0.4	-0.3
Ethnic-Race:								
White, Other Origin	0.0	0.5	0.0	-0.9	-0.2	0.8	-0.6	0.2
British Isles White	-3.0	-2.8	0.4	1.1	-1.4	1.4	2.3	1.3
Europe White	-0.9	-0.8	0.4	0.8	-0.3	0.4	3.2	-1.1
Europe White	11.4	11.8	8.3	9.0	3.5	2.0	16.1	-0.5
spanic	1.3	-0.6	-2.6	1.6	1.0	-2.9	-5.9	2.6
Black (ex. Hispanic)	-0.2	-1.1	-1.6	0.1	1.2	-4.5	-2.6	-1.7
Other Races	5.6	1.1	-2.4	-6.6	1.4	-4.2	-12.4	-2.2
White (unknown origin)	-3.7	-2.1	0.3	2.8	1.5	1.0	2.5	-1.3
Sex:								
Male	-1.6	-0.7	-0.4	-1.9	0.1	-2.1	-.02	-0.3
Female	1.4	0.6	0.4	1.7	-0.1	1.9	+.01	0.3
Education:								
Grade school	-11.8	-4.2	-6.1	-11.4	-4.3	-4.7	-.17	-3.0
Some high school	-5.5	-2.7	-4.3	-10.8	-1.3	-5.1	-.13	-1.6
High school graduate	-1.1	-2.4	-1.3	-2.2	-1.2	-3.2	-.03	-0.5
Some college	4.4	2.5	1.1	7.1	1.0	0.3	+.06	1.1
College graduate	7.0	5.7	7.8	8.2	4.4	1.9	+.15	1.4
Graduate school	10.3	8.1	8.5	14.9	5.5	12.9	+.24	4.6

Plays

Watching plays on television is more common among those with higher income and education levels. Those under 24 years and those over 65 years are least likely to watch. Whites of British Isles and especially East European ancestry are more--while Hispanics, blacks and "other" races are less--likely than the average to watch. Males are slightly less likely than females to watch television plays.

The rates for listening to plays on radio exhibit little variation across the background variables. Those earning $50,000 or more, the older aged groups, "other" races and whites of unknown origin, are less likely than the average to listen to plays on the radio. The strongest association is with education--those with higher education are more likely to listen to plays on the radio.

Ballet

Those with higher income or education levels are more likely to watch ballet on television. Watching also rises with age, peaking with those aged 55-64. Whites of East European descent and "other" races are more likely than the average to watch, while blacks are the least likely. Women are markedly more likely than men to watch ballet on television. These trends are maintained after adjustment for other factors.

Art

Watching art-related programs on television is more common among those with higher income and educational levels. The viewing of these programs has a curvilinear relation with age, peaking with those aged 45-54. Among the ethnic-racial groups, whites of British Isles or East European descent are the most--while Hispanics and whites of unknown origins are the least--likely to watch these programs.

4) DIMENSIONS OF ART PARTICIPATION VIA THE MASS MEDIA

The analysis above reveals that certain sub-groups (e.g., ethnic groups) are more likely to follow a particular art through all three media forms (television, radio and recordings). Either of tow assumptions can be drawn from this finding. First, it is reasonable to assume that it is the same people within the sub-group who are following their favorite arts through all possible media. However, it is equally plausible that people may have a preferred (or more readily available) medium through which they paticipate in their favorite at forms. Thus, for instance, some whites of East European descent might listen to classical music via the radio and others via the television, and the overlap between the two groups might be minimal. A factor analysis of participation in the arts via the three mass media indicates the ways in which participation in the various art forms through each of three mass media forms tend to be grouped.

The results of the factor analysis are shown in Table 6.5 and reveal four clusters. The composition of these clusters consisting of strongly correlated media variables will be discussed below. In addition, the first and second clusters are graphically displayed in Diagram 6.1. The first cluster (or factor) lies along the horizontal axis, and is composed of those variables grouped farthest to the right on this axis with strong intercorrelations. The second cluster is similarly identifiable along the vertical axis.

The first cluster consists of those who tend to pursue a range of arts through television. This cluster shows a relatively strong association among watching art exhibits, plays, ballet, opera, musicals, and classical music on television. (These are indicated with an asterick.) Television viewing of jazz performances is weakly associated with this cluster. It should be noted that the number of hours spent watching television shows almost no relationship to this cluster focusing on television viewing of the arts.

A second cluster reveals the participation of jazz enthusiasts. who tend to follow jazz performances on all three media, television, radio, and recordings.

A third cluster identifies a group that primarily follows the arts through radio broadcasts. This group listens to operas, musicals, and classical music on the radio as well as to recordings of operas.

A fourth cluster consists mostly of listeners to recordings of opera, classical music and musicals and to classical music on the radio. This cluster focuses primarily on those who follow the arts through recordings.

Factor analysis suggests that individuals who follow the arts through the media do indeed fall into certain patterns. Moreover, these patterns seem to be centered more on the particular types of media than on a particular art form through all possible media. Each of the media has a cluster associated with it. Those who participate in one art form through television are more likely to participate in the whole range of arts on television rather than through the other media. Similarly, though for a narrower range of art forms, (opera, classical music, and musicals), those who listen to one of these arts on either the radio or recordings are more likely to listen to the other two music forms on the same, rather than different, media. Thus, those who participate in opera, classical and music and musicals through the media tend to concentrate on one medium.

The major exception to the relative dominance of media over art form is jazz where clearly the art form is more important than a particular medium. Jazz enthusiasts tend to use all three media to pursue this art form. Other exceptions (but with weaker associations) relate to overlpa between recordings and radio: those who use radio for several arts tend also to listen to opera recordings who people who use recordings also listen to classical music on the radio.

Table 6.5: Factor Analysis of Media Use Variables:
Varimax Rotated Factor Matrix

	Factor 1	Factor 2	Factor 3	Factor 4
TV Hours	.037	-.035	-.067	-.184
TV Jazz	*.355	*.526	.052	-.037
Radio Jazz	.106	*.664	.142	.103
Recordings Jazz	.123	*.758	.021	.204
TV Classical	*.652	.118	.148	.226
Radio Classical	.335	.232	*.358	*.365
Recordings Class.	.396	.199	.123	*.662
TV Opera	*.553	-.003	.298	.127
Radio Opera	.164	.049	*.737	.239
Recording Opera	.291	-.013	*.352	*.443
TV Musicals	*.600	.115	.167	.010
Radio Musicals	.170	.077	*.507	.165
Recording Musicals	.287	.061	.210	*.403
TV Play	*.554	.234	.100	[illegible]
Radio Play	.151	.130	.201	.091
TV Ballet	*.578	.110	.161	.178
TV Art Displays	*.523	.218	.078	.082

* Indicates variables within each factor

Diagram 6.1: Plot of Rotated Factors of Arts Participation via the Media.

```
HORIZONTAL FACTOR  1      VERTICAL FACTOR  2
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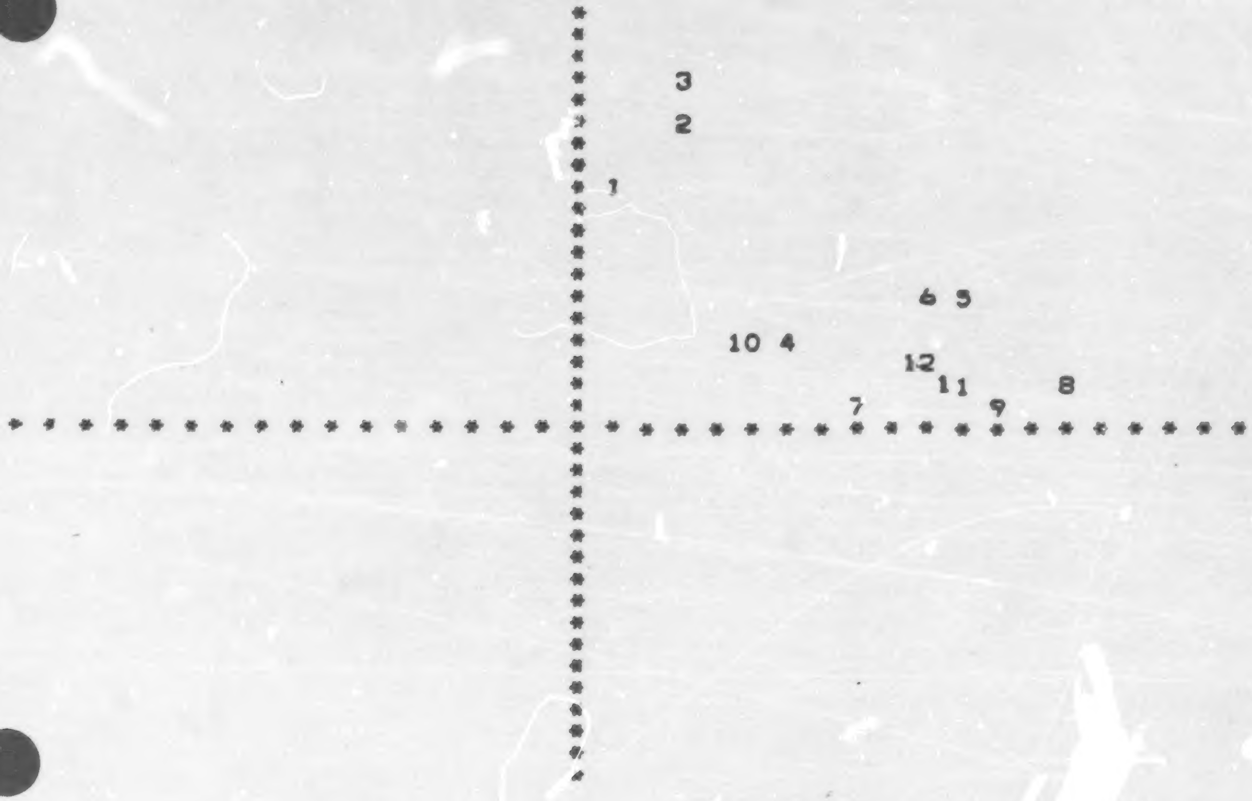

```
 1 = TVJAZZ         2 = [illegible]JAZZ
 3 = RECJAZZ        4 = [illegible]MUSIC
 5 = RMUSIC .       6 = [illegible]USIC .
 7 = TVOPERA        8 = [illegible]PERA .
 9 = TOPERA ,      10 = [illegible]MUSICL
11 = RMUSI[illegible]AL .  12 = [illegible]MUSICAL .
```

5) BACKGROUND DIFFERENCES: ARTS BY MEDIUM AND MEDIA BY ART FORM

The factor analysis demonstrates that arts participation via the media tends to be patterned--usually more strongly organized around media than around a particular art form. The next step is to examine the social characteristics of respondents who are involved in sets of media and arts combinations. This analysis covers both types of patterns, those organized by media and those organized by art form.

Arts through Each Medium

Organization of arts by media will be treated first. Table 6.6 shows the relationship of ten background factors to the average number of art forms followed via a particular medium. For example, the television index measures whether a respondent has watched television performances of either jazz, classical music, operas, musicals, plays, ballets, or art presentations in the preceding 12 months. For example, respondents from households earning over $50,000 watch at presentations more than the average; 2.6 (the grand mean of 1.4 plus the deviation of +1.2). It should be noted that the indices are based on varying numbers of at forms since not all forms are caused by all media. Table 6.7 presents the same associations between participation via the media and each background factor, adjusted for the effects of all other background variables.

Index of Participation in All Arts Through All the Media

The college educated, professionals,

and higher income persons tend to follow more art forms through more types of media. In contrast, laborers, operatives, persons without a high school diploma, persons over 75 years of age, persons with household

Table 6.6: Indices of "Core" Arts Participation Across Mass Media: By Selected Background Factors (Unadjusted) (Deviation Above and Below Grand Mean on Each Index)

	All Media	TV	Radio	Recordings
AVERAGE INDEX SCORE	2.6	1.4	0.5	0.6
Income:				
Under $10,000	-1.0	-0.6	-0.1	-0.3
$10,000 - $14,999	-0.8	-0.5	-0.1	-0.2
$15,000 - $19,999	-0.5	-0.3	-0.1	-0.1
$20,000 - $29,999	0.2	0.1	0.0	0.0
$30,000 - $49,999	0.6	0.4	0.1	0.2
$50,000 and over	2.0	1.2	0.3	0.4
Not applicable	0.3	0.1	0.1	0.1
SMSA:				
Central city of SMSA	0.6	0.3	0.2	0.1
SMSA, not central city	0.2	0.1	0.0	0.1
Not in SMSA	-0.8	-0.4	-0.2	-0.2
Age:				
18 - 24 years	-0.4	-0.4	0.0	-0.1
25 - 34 years	0.2	0.1	0.1	0.1
35 - 44 years	0.1	0.0	0.0	0.0
45 - 54 years	0.5	0.3	0.1	0.1
55 - 64 years	0.3	0.3	0.0	0.1
65 - 74 years	-0.4	-0.1	-0.2	-0.2
75 - 96 years	-1.1	-0.5	-0.3	-0.4
Marital:				
Married	-0.1	0.0	0.0	0.0
Widowed	-0.5	-0.1	-0.2	-0.2
Divorced	0.8	0.4	0.2	0.2
Separated	-0.5	-0.4	0.0	-0.1
Never married	0.2	-0.1	0.2	0.2
Ethnic-Race:				
White, other origin	-0.1	0.0	0.0	0.0
White, British Isles	0.3	0.2	0.0	0.1
White, W. Europe	0.0	0.1	-0.1	0.0
White, E. Europe	1.4	0.8	0.3	0.3
Hispanic	-0.4	-0.2	0.0	-0.2
Black (exclude Hispanic)	-0.1	-0.2	0.1	0.0
Other races	0.5	0.2	0.2	0.1
White, unknown origin	-0.9	-0.3	-0.3	-0.3
Sex:				
Male	-0.1	-0.1	0.0	0.0
Female	0.1	0.1	0.0	0.0

Education:				
Grade School	-1.7	-0.9	-0.3	-0.4
Attended High School	-1.2	-0.7	-0.2	-0.3
High School Graduate	-0.5	-0.2	-0.1	-0.1
Attended College	0.5	0.3	0.1	0.1
College Graduate	1.8	0.8	0.4	0.5
Attended Grad School	2.9	1.4	0.7	0.8
Work Hours:				
None	-0.2	0.0	-0.1	-0.1
1 - 29	0.2	0.1	0.1	0.1
30 - 39	0.1	0.0	0.0	0.1
40 hours	0.0	0.0	0.0	0.0
41 - 49	0.1	0.0	0.0	0.1
50 or more	0.4	0.1	0.1	0.1
Work:				
Professional	2.0	1.0	0.5	0.6
Managerial	0.6	0.3	0.2	0.2
Sales, Clerical	0.1	0.1	0.0	0.1
Craftsman	-0.5	-0.3	-0.1	-0.1
Operatives	-1.0	-0.6	-0.1	-0.2
Laborers	-1.1	-0.6	-0.3	-0.3
Service Workers	-0.4	-0.2	-0.1	-0.1
Not Working	0.0	0.0	0.1	0.0
Keeping House	-0.3	0.0	-0.1	-0.1
Student	0.3	-0.1	0.1	0.2
Retired	-0.6	-0.2	-0.2	-0.2
# of Children:				
None	0.1	0.0	0.0	0.0
One, 6 - 11 years	-0.1	0.0	-0.1	-0.1
Two+, 6 - 11 years	-0.2	-0.1	0.0	-0.1
One under 6	-0.2	-0.1	0.0	0.0
One, 0 - 5/One, 6 - 11	-0.4	-0.1	-0.2	-0.1
One, 0 - 5/Two+, 6 - 11	0.4	0.3	0.1	0.0
Two+, 0 - 5	0.0	0.0	0.0	0.0
Two+, 0 - 5/One, 6 - 11	-0.5	-0.3	-0.1	-0.1
Two+, 0 - 5/Two+, 6 - 11	-1.0	-0.5	-0.3	-0.2

All media index is a count

incomes under $10,000, people with several children and infants are groups which participate in the fewest arts though the fewest channels of media.

In general, the adjustment for the impact of other factors changes little in terms of the predicted participation for the above groups. The rates for operatives and laborers are, however, somewhat higher if the suppressing influence of other factors (e.g. education and income) is statistically removed. On the other hand, the association between income and participation is weakened when all factors, such as education, are controlled.

Index of Television Participation in the Arts

Better educated, wealthier, professionals

are also the most likely to follow a variety of art forms on television.

When other background factors are held constant, the higher rates of television participation for better educated persons is basically unchanged, but the rates for professionals and higher income persons are substantially reduced. Thus, education is a strong explanatory factor, while the influence of income and professional status is strongly dependent upon the impact of associated factors, such as educational achievement.

Index of Radio Participation in the Arts

Professionals, college graduates,

members of "other" races, residents of central cities, and those in households earning $50,000 and over tend to use the radio to participate in a broader range of the arts. In contrast, those living outside of SMSA's, those over 75 years of age, widows, whites of unknown national origins,

Table 6.7: Indices of "Core" Arts Participation Across Mass Media After Adjustment By Selected Background Factors, (Deviations Above and Below Average Index Score)

	All Media	TV	Radio	Recordings
AVERAGE INDEX SCORE	2.6	1.4	0.5	0.6
Income:				
Under $10,000	-0.6	-0.4	-0.1	-0.2
$10,000 - $14,999	-0.3	-0.3	0.0	-0.1
$15,000 - $19,999	-0.2	-0.2	0.0	0.0
$20,000 - $29,999	0.1	0.1	0.0	0.0
$30,000 - $49,999	0.3	0.2	0.0	0.1
$50,000 and over	0.8	0.6	0.1	0.1
Not applicable	0.1	0.0	0.1	0.1
SMSA:				
Central city of SMSA	0.5	0.3	0.2	0.1
SMSA, not central city	0.0	0.0	0.0	0.0
Not in SMSA	-0.5	-0.2	-0.1	-0.1
Age:				
18 - 24 years	-0.6	-0.4	-0.1	-0.1
25 - 34 years	-0.2	-0.2	0.0	0.0
35 - 44 years	-0.1	-0.1	0.0	0.0
45 - 54 years	0.6	0.4	0.1	0.2
55 - 64 years	0.6	0.4	0.1	0.1
65 - 74 years	0.2	0.2	0.0	-0.1
75 - 96 years	-0.2	0.0	-0.1	-0.2
Marital:				
Married	-0.2	-0.1	-0.1	-0.1
Widowed	0.1	0.1	0.0	0.0
Divorced	0.6	0.4	0.1	0.2
Separated	-0.1	-0.1	0.0	0.0
Never married	0.4	0.1	0.1	0.2
Ethnic-Race:				
White, other origin	-0.1	0.0	0.0	0.0
White, British Isles	-0.1	0.0	-0.1	0.0
White, W. Europe	-0.1	0.0	-0.1	0.0
White, E. Europe	1.1	0.6	0.2	0.2
Hispanic	0.1	0.1	0.1	0.0
Black (exclude Hispanic)	0.2	0.0	0.1	0.1
Other races	-0.3	-0.1	0.0	-0.1
White, unknown origin	-0.3	0.0	-0.1	-0.1
Sex:				
Male	-0.1	-0.1	0.0	0.0
Female	0.1	0.1	0.0	0.0

Education:				
Grade School	-1.6	-1.0	-0.3	-0.3
Attended High School	-1.1	-0.7	-0.2	-0.3
High School Graduate	-0.4	-0.2	-0.1	-0.1
Attended College	0.5	0.4	0.1	0.1
College Graduate	1.6	0.8	0.4	0.5
Attended Grad School	2.4	1.2	0.6	0.7
Work Hours:				
None	0.1	0.1	0.0	0.0
1 - 29	0.2	0.1	0.1	0.1
30 - 39	0.0	-0.1	0.0	0.0
40 hours	-0.2	-0.1	0.0	-0.1
41 - 49	0.0	0.0	0.1	0.0
50 or more	0.0	-0.1	0.1	0.0
Work:				
Professional	0.5	0.2	0.1	0.1
Managerial	-0.2	-0.1	-0.1	-0.1
Sales, Clerical	-0.2	-0.1	-0.1	0.0
Craftsman	-0.1	-0.1	0.0	0.0
Operatives	-0.3	-0.2	0.0	-0.1
Laborers	-0.3	-0.1	-0.1	-0.1
Service Workers	-0.2	-0.1	-0.1	-0.1
Not Working	0.5	0.2	0.2	0.0
Keeping House	0.1	0.0	0.0	0.0
Student	0.0	-0.1	0.0	0.1
Retired	0.1	0.1	0.0	0.0
# of Children:				
None	0.0	0.0	0.0	0.0
One, 6 - 11 years	0.1	0.1	0.0	0.0
Two+, 6 - 11 years	0.0	0.1	0.0	0.0
One, under 6	0.0	0.0	0.0	0.0
One, 0 - 5/One, 6 - 11	-0.2	0.1	-0.2	-0.1
One, 0 - 5/Two+, 6 - 11	0.6	0.5	0.1	0.0
Two+, 0 - 5	0.0	0.0	0.0	-0.1
Two+, 0 - 5/One, 6 - 11	0.0	0.0	0.1	0.0
Two+, 0 - 5/Two+, 6 - 11	-0.6	-0.2	-0.2	-0.1

All media index is a count

"other" races, those without a high school diploma, laborers, those having one infant and one child, those having two or more of each are markedly less likely to participate in a range of arts through radio.

The below average rates for older people, widows, "other" races, whites of unknown national origins, and laborers are largely attributable to the influence of other factors such as differential education and occupational status. However, the low rates for the less educated and those with each one infant and one child or two or more of each tend to be independent of the effects of the other background factors.

Index of Arts Participation through Recordings

People of some backgrounds are more likely to use records and tapes to listen to a broader range of music (jazz, classical music, opera, or musicals). In particular, better educated and wealthier individuals tend to listen to a variety of music through recordings. Ethnic, age, occupational categories a well as number of children also show sharp differences in terms of ats through recordings.

When other factors are equalized, the differences among income and age groups become more modest--a change suggesting that other background factors play an important part in explaining differences in listening patterns within these groups. The strong influence of education is, however, independent of the impact of the other background factors; in fact education may explain some of the differences within other variables before adjustment.

In sum, certain social characteristics are associated with following a greater variety of art forms through each of the media. Whether via television, radio, or recordings; college educated persons, higher level white collar workers, and divorced persons follow more types of art forms. Education is generally the strongest explanatory factor; education differences are maintained after adjustment for other factors. In other cases (e.g. income and occupation) the decrease in variation after adjustment may be due to removing the impact of education, which is closely associated with those variables.

The Media and Each Art Form

The second line of analysis of multiple arts-media use is to focus on each art form, examining the media used to follow it. Table 6.8 shows the relationship of selected background factors to the average number of media (television, radio, and recordings) used by respondents, to pursue their interest in a specific art form. For example, members of households earning over $50,000 use an average of 0.8 (0.6+0.2) media to follow jazz compared to an average of 0.5 media for members of households earning less than $10,000. Table 6.9 presents the same relationships after adjusting for the influence of other factors. The major predictors and explanatory factors will be highlighted below.

(Ballet and art displays are not treated in this analysis because they are carried by only one medium.)

Index of Media Usage for Jazz

People of certain backgrounds tend to follow jazz through multiple media - television, radio and recordings. Better educated persons, students and blacks are especially likely to pursue jazz through several media while older people, widows and those with several children are noticeably less likely than average to do so.

A considerable portion of the higher rates for low income people and students and the lower than average rates for widows and elderly are attributable to other factors. However, even after adjustment for other factors, shapr distinctions by age, marital status, ethnic background and number of children are maintained.

Index of Media Usage for Classical Music

Table 6.8: Indices of Media Exposure for Each Arts Form (Unadjusted)
(Above and Below Average Index of Number of Media Used)

	Jazz	Classical	Opera	Non-Musical Plays	Musicals/ Operettas
AVERAGE INDEX SCORE	0.6	0.7	0.3	0.3	0.3
Income:					
Under $10,000	-0.1	-0.3	-0.1	-0.1	-0.1
$10,000 - $14,999	-0.1	-0.2	-0.1	-0.1	-0.1
$15,000 - $19,999	-0.1	-0.1	-0.1	-0.1	-0.1
$20,000 - $29,999	0.1	0.1	0.0	0.0	0.0
$30,000 - $49,999	0.1	0.2	0.1	0.1	0.1
$50,000 and over	0.2	0.6	0.3	0.3	0.4
Not applicable	0.0	0.1	0.1	0.0	0.1
SMSA:					
Central city of SMSA	0.2	0.1	0.1	0.1	0.1
SMSA, not central city	0.0	0.1	0.1	0.0	0.0
Not in SMSA	-0.2	-0.2	-0.1	-0.1	-0.1
Age:					
18 - 24 years	0.2	-0.2	-0.1	0.0	-0.1
25 - 34 years	0.2	0.0	-0.1	0.0	0.0
35 - 44 years	-0.1	0.1	0.0	0.0	0.0
45 - 54 years	0.0	0.2	0.2	0.1	0.1
55 - 64 years	-0.1	0.2	0.1	0.0	0.0
65 - 74 years	-0.3	-0.1	0.0	0.0	-0.1
75 - 96 years	-0.5	-0.3	0.0	-0.1	-0.1
Marital:					
Married	-0.1	0.0	0.0	0.0	0.0
Widowed	-0.3	-0.1	0.0	-0.1	0.0
Divorced	0.2	0.2	0.1	0.1	0.1
Separated	0.3	-0.1	-0.1	-0.1	-0.2
Never married	0.3	0.1	-0.1	0.0	0.0
Ethnic-Race:					
White, other origin	-0.1	0.0	0.0	0.0	0.0
White, British Isles	0.0	0.1	0.0	0.1	0.1
White, W. Europe	-0.1	0.0	0.0	0.0	0.0
White, E. Europe	0.0	0.4	0.4	0.2	0.2
Hispanic	0.0	-0.1	-0.1	-0.1	-0.1
Black (exclude Hispanic)	0.4	-0.2	-0.1	-0.1	-0.1
Other races	0.1	0.2	0.1	-0.1	0.0
White, unknown origin	-0.3	-0.3	-0.1	-0.1	0.0
Sex:					
Male	0.1	0.0	0.0	0.0	0.0
Female	-0.1	0.0	0.0	0.0	0.0

Education:					
Grade School	-0.4	-0.4	-0.2	-0.2	-0.2
Attended High School	-0.2	-0.3	-0.1	-0.2	-0.2
High School Graduate	-0.1	-0.2	-0.1	0.0	-0.1
Attended College	0.1	0.1	0.0	0.1	0.1
College Graduate	0.3	0.6	0.2	0.2	0.3
Attended Grad School	0.5	0.9	0.3	0.3	0.4
Work Hours:					
None	-0.1	-0.1	0.0	0.0	0.0
1 - 29	0.1	0.1	0.0	0.0	0.0
30 - 39	0.0	0.0	0.0	0.0	0.0
40 hours	0.1	0.0	0.0	0.0	0.0
41 - 49	0.1	0.0	0.0	0.0	0.0
50 or more	0.1	0.2	0.0	0.0	0.0
Work:					
Professional	0.3	0.6	0.3	0.2	0.3
Managerial	0.2	0.2	0.0	0.1	0.1
Sales, Clerical	0.1	0.0	0.0	0.0	0.0
Craftsman	-0.1	-0.2	-0.1	-0.1	-0.1
Operatives	-0.1	-0.2	-0.1	-0.1	-0.2
Laborers	-0.1	-0.3	-0.1	-0.2	-0.2
Service Workers	0.0	-0.2	-0.1	-0.1	-0.1
Not Working	0.1	-0.1	0.0	0.0	0.0
Keeping House	-0.2	0.0	0.0	0.0	0.0
Student	0.5	-0.1	0.0	0.0	0.0
Retired	-0.3	-0.1	0.1	0.0	-0.1
# of Children:					
None	0.0	0.0	0.0	0.0	0.0
One, 6 - 11 years	-0.1	0.0	0.0	0.0	0.0
Two+, 6 - 11 years	0.0	0.0	-0.1	0.0	-0.1
One under 6	0.2	-0.2	-0.1	0.0	0.0
One, 0 - 5/One, 6 - 11	-0.2	0.0	-0.1	0.0	0.0
One, 0 - 5/Two+, 6 - 11	0.1	0.1	0.1	0.0	0.0
Two+, 0 - 5	0.0	0.0	-0.1	0.0	0.0
Two+, 0 - 5/One, 6 - 11	0.0	-0.2	-0.1	-0.1	0.0
Two+, 0 - 5/Two+, 6 - 11	-0.4	-0.1	-0.1	-0.1	-0.2

All media index is a count

Better educated, wealthy persons and upper level white collar workers are more likely to follow classical music through multiple media (television, radio, recordings). There is also variation among people with different marital status, ethnicity and number of children. Age differences are slight with somewhat lower usage among the youngest and oldest groups.

However, much of the within-group variation among categories of income, marital status, number of children and ethnicity can be attricuted to other factors. Once again, the effect of educaion is independent of other background factors, and may, in fact, explain some of the variations before adjustment.

Index of Media Usage for Opera

Better educated persons, the affluent, whites and professionals tend more than others to follow opera through several media (television, radio and recordings).

The high rates for wealthier people and professions are largely attributable to other factors (see adjusted figure in Table 6.9), probably education which is closely associated with both income and occupation. In contrast, the influence of education is independent of the other background indicating that it is a strong explanatory factor.

Index of Media Usage for Musicals and Operettas

College graduates, wealthier individuals, professionals, and whites are most likely to listen to musicals or operettas through more media (television, radio, recordings).

Adjustment for the impact of other factors suggests that the use of more types of media to follow musicals or operettas by high income individuals and professionals is explainable to a considerable extent by other

Table 6.9: Indices of Media Exposure for Each Arts Form for Selected Background Factors (Unadjusted for Background Factors: Above and Below Average Index of Number of Media Used)

	Jazz	Classical	Opera	Plays	Musicals/ Operettas
AVERAGE INDEX SCORE	0.6	0.7	0.3	0.3	0.3
Income:					
Under $10,000	-0.2	-01.	-0.1	-0.1	-0.1
$10,000 - $14,999	-0.1	-0.1	-0.1	0.0	-0.1
$15,000 - $19,999	-0.1	0.0	0.0	0.0	0.0
$20,000 - $29,999	0.0	0.0	0.0	0.0	0.0
$30,000 - $49,999	0.1	0.0	0.1	0.0	0.1
$50,000 and over	0.1	0.2	0.2	0.1	0.2
Not applicable	0.1	0.1	0.1	0.0	0.1
SMSA:					
Central city of SMSA	0.1	0.1	0.1	0.1	0.1
SMSA, not central city	0.0	0.0	0.0	0.0	0.0
Not in SMSA	-0.1	-0.1	-0.1	-0.1	-0.1
Age:					
18 - 24 years	0.0	-0.2	-0.1	-0.1	-0.1
25 - 34 years	0.2	-0.1	-0.1	0.0	-0.1
35 - 44 years	-0.1	0.0	0.0	0.0	0.0
45 - 54 years	0.0	0.2	0.1	0.1	0.1
55 - 64 years	0.0	0.2	0.1	0.0	0.1
65 - 74 years	-0.1	0.1	0.0	0.0	0.0
75 - 96 years	-0.3	0.0	0.0	0.0	0.0
Marital:					
Married	-0.1	0.0	0.0	0.0	0.0
Widowed	0.0	0.0	0.0	0.0	0.0
Divorced	0.2	0.2	0.1	0.0	0.1
Separated	0.2	-0.1	-0.1	0.0	-0.1
Never married	0.2	0.1	0.0	0.1	0.0
Ethnic-Race:					
White, other origin	-0.1	0.0	0.0	0.0	0.0
White, British Isles	0.0	0.0	0.0	0.0	0.0
White, W. Europe	-0.1	0.0	0.0	0.0	0.0
White, E. Europe	0.0	0.3	0.2	0.2	0.2
Hispanic	0.1	0.1	0.0	0.0	0.0
Black (exclude Hispanic)	0.5	-0.1	0.0	-0.1	0.0
Other races	-0.1	0.0	-0.1	-0.2	-0.1
White, unknown origin	-0.2	-0.1	0.1	0.0	0.1
Sex:					
Male	0.1	-0.1	0.0	0.0	0.0
Female	0.0	0.1	0.0	0.0	0.0

Education:					
Grade School	-0.3	-0.4	-0.2	-0.2	-0.2
Attended High School	-0.2	-0.3	-0.2	-0.1	-0.2
High School Graduate	-0.1	-0.1	-0.1	0.0	-0.1
Attended College	0.1	0.1	0.1	0.1	0.1
College Graduate	0.2	0.5	0.3	0.2	0.3
Attended Grad School	0.5	0.8	0.3	0.3	0.3
Work Hours:					
None	0.0	0.1	0.0	0.0	0.0
1 - 29	0.1	0.1	0.0	0.0	0.0
30 - 39	0.0	0.0	0.0	0.0	0.0
40 hours	0.0	-0.1	-0.1	0.0	-0.1
41 - 49	0.0	0.0	0.0	-0.1	0.0
50 or more	0.1	0.0	0.0	0.0	0.0
Work:					
Professional	0.0	0.1	0.1	0.1	0.1
Managerial	0.0	0.0	0.0	0.0	0.0
Sales, Clerical	0.0	-0.1	-0.1	0.0	-0.1
Craftsman	-0.1	0.0	0.0	0.0	0.0
Operatives	-0.1	0.0	-0.1	0.0	-0.1
Laborers	-0.1	0.0	-0.1	0.0	-0.1
Service Workers	0.0	-0.1	-0.1	0.0	-0.1
Not Working	0.2	0.0	0.1	0.0	0.1
Keeping House	0.1	0.0	0.0	0.0	0.0
Student	0.3	-0.1	-0.1	-0.1	-0.1
Retired	0.0	0.0	0.0	0.0	0.0
# of Children:					
None	0.0	0.0	0.0	0.0	0.0
One, 6 - 11 years	-0.1	0.1	0.0	0.0	0.0
Two+, 6 - 11 years	0.0	0.1	0.0	0.0	0.0
One, under 6	0.1	-0.1	0.0	0.0	0.0
One, 0 - 5/One, 6 - 11	-0.2	0.1	0.0	0.0	0.0
One, 0 - 5/Two+, 6 - 11	0.1	0.1	0.1	0.1	0.1
Two+, 0 - 5	-0.1	0.0	0.1	0.0	0.1
Two+, 0 - 5/One, 6 - 11	0.0	-0.1	0.1	0.0	0.1
Two+, 0 - 5/Two+, 6 - 11	-0.5	0.0	-0.1	0.0	-0.1

All media index is a count

factors such as education. The higher rates for college graduates and whites . are independent of the influence of the other background factors.

Index of Media Usage for Plays

Better educated, a high income, professional groups, and whites tend to follow plays on several media (television and radio).

When other factors are controlled, higher educational level and status as a white . . . . remain strong predictors of following plays through television and radio. The differences among occupational and income groups, however, are noticeably diminished when the influence of the other background variables are statistically removed.

Throughout, we see that education is the best predictor of arts participation through several media. Income and occupation are also good predictors but their impact is weakened when other background factors are controlled. The association between multiple media participation and educaion is maintained after adjustment for other background variables indicating that education is a strong explanatory factor.

6) ATTENDANCE AT ART EVENTS AND PARTICIPATION IN THE ARTS THROUGH THE MASS MEDIA

We are interested in determining whether people who participate in the ats through the mass media also are more likely to attend art events and to read literature. Table 6.10 presents the data relevant to this hypothesis: correlations between participation via attendance and via the mass media. The correlations are all positive except for a weak negative assocaion between attendance and hours of watching television. Thus, using the media to follow any of the art forms is associated with attending performances of all of the ats; however, television viewing is weakly associated with a lesser tendency to attend art performances. In other words, watching television in general may be an alternative to attending arts events, but using the media to follow the arts tends to be supplementary to attending arts events. The stronger predictors of participation in each type of art performances will be discussed below. (Correlation of 0.20-0.29 will be referred to as moderate; correlations of 0.30-0.39 as substantial; correlations of 0.40-0.49 as strong.)

Jazz Performances

Not surprisingly, the best predictors of attending jazz performances are those media variables involved in following jazz. Following jazz via records, via radio, and via television (in that order of strength) are substantial to moderate predictors.

Classical Music Concerts

Listening to classical music through recordings or radio are important predictors of attending classical music performances, while following music through television constitutes a moderate predictor of attendance. Other arts via the media provide moderate aid in predicting attendance at classical music performances. (Jazz via any medium and plays through radio are exceptions to this.)

Opera

Among the media variables, the best, predictors of opera attendance are following opera through either recordings, radio, or television. However, these are of only moderate strength in predicting attendance.

Musicals

Attendance at musicals is best predicted by watching musicals, plays, classical music, or ballet on television as well as listening to recordings of musicals or classical music. Each of these media variables provides moderate improvement in predicting the attendance at musicals.

Plays

Almost none of the media variables is a useful predictor of attendance at plays. Listening to classical music recordings and watching plays on television are, however, moderate predictors of attendance. On the other hand, listening to plays on the radio has little predictive ability.

Ballet

The attendance of ballet performances is moderately related to listening to classical music recordings and to watching ballet on television.

Art Museums and Galleries

Almost all the art forms through the media, including viewing art shows on television, are moderate predictors of visits to art museums and galleries. Furthermore, these visits have a substantial relationship to listening to classical music on recordings or radio.

Reading Literature

Following any of the arts on television (except for jazz) has a moderate to substantial association with reading literature. In addition, listening to classical music via radio on recordings or to jazz on records also relates moderately to reading literature.

Table 6.10: Correlations between Media Activities and Participation in the "Core" Arts.

	Jazz	Classical Music	Opera	Musical	Play	Ballet	Art Mus.	Read
TV Hours	-.037	-.124	-.047	-.093	-.104	-.077	-.132	-.095
TV Jazz	.260	.170	.062	.151	.115	.102	.208	.199
Radio Jazz	.322	.152	.053	.111	.143	.098	.203	.177
Recording Jazz	.351	.141	.013	.152	.155	.132	.229	.213
TV Clas. Music	.108	.293	.156	.223	.167	.151	.283	.280
Radio Clas. Music	.153	.307	.144	.197	.200	.160	.302	.239
Recording Clas. Music	.179	.343	.149	.216	.206	.210	.343	.288
TV Opera	.053	.260	.205	.157	.147	.102	.216	.177
Radio Opera	.100	.265	.233	.133	.168	.134	.223	.141
Recording Opera	.035	.268	.234	.144	.141	.158	.186	.154
TV Musical	.110	.240	.122	.255	.183	.118	.231	.243
Radio Musical	.045	.207	.163	.087	.117	.096	.214	.144
Recording Musical	.102	.251	.163	.219	.176	.183	.289	.194
TV Play	.141	.228	.132	.257	.233	.161	.282	.306
Radio Play	.086	.133	.115	.084	.132	.091	.176	.106
TV Ballet	.166	.271	.158	.219	.178	.224	.273	.217
TV Art Display	.133	.200	.106	.157	.125	.110	.293	.289

7) INDICES OF MEDIA USE AND ARTS PARTICIPATION

Individually, each of the arts media variables has a positive relationship, often of moderate strength, with attending arts performances or reading literature. Nevertheless, another dimension of following the arts via the media may have opposing relationships with attendance or reading literature. The alternatives can be described as follows: if a person uses more channels of media to participate, he/she may be less likely to attend live performances as the media become a substitute for attendance. Alternatively, if a person follows an art form through several media, he/she may be more likely to attend live performances as media participation may reflect or stimulate enthusiasm for the art form. In other words, do people use more forms of media to substitute for attendance at the arts, or do people who use more media channels attend more frequently?

The data in Table 6.11 suggest that people who follow the arts through several media are generally more likely to attend live art events, as well. Thus, the tendency is to supplement art attendance with media participation rather than to substitute the media for attendance. The only exception to this tendency are musicals, those who follow musicals through the three media (television, radio and recordings) are less likely to attend live musicals than those who use only two media. Apparently, there is some substitution of media participation for atendance. However, it should be noted that the attendance rate for those following musicals through all three media is about twice the average rate.

Finally, Table 6.12 presents these relationships after controlling for the effects of selected background factors. The extent to which the variation predicted by a media-art variable is the consequence of associated background variables can be ascertained by comparing Tables 6.11 and 6.12. For example, if education were associated with both greater media usage and arts attendance, then the relationship between attendance and media usage might be explainable largely in terms of education.

A comparison of the two Tables suggests that the predictive strength of media usage is somewhat diminished by holding background factors constant, but the general trends persist. (The only exception concerns musicals, as explained above: using two media is a better predictor of attendance than is using all three media.) We can conclude that typically attendance at the arts and reading literature is at least partially explainable by broader media usage to follow the arts.

Table 6.11: Attendance at each Art by Number of Media Used to Follow the Same Art Form (Except for Attendance Index* and Reading Literature). Percentage of Respondents Above or Below the Grand Mean for Participation in the Arts.

	Attendance								
	Jazz	Classical Music	Opera	Musicals	Play	Ballet	Art Museum	Attend. Index	Read Lit.
Grand Mean*	10.2%	12.1%	2.3%	19.3%	11.5%	4.2%	22.3%	.83%	57.4%
Number of Media Used for Each Art:									
0	-7.4	-8.9	-1.5	-7.7	-5.1	-2.1	-7.0	-.62	-23.9
1	3.3	1.9	3.3	19.3	12.7	10.3	23.4	-.29	5.3
2	20.4	16.4	7.5	34.1	21.2	NA	NA	-.13	4.4
3	34.4	36.1	25.2	22.7	NA	NA	NA	.04	10.1
4	NA	NA	NA	NA	NA	NA	NA	.37	16.3
5	NA	NA	NA	NA	NA	NA	NA	.69	29.2
6	NA	NA	NA	NA	NA	NA	NA	.62	28.5
7	NA	NA	NA	NA	NA	NA	NA	.84	25.3
8	NA	NA	NA	NA	NA	NA	NA	1.16	30.2
9	NA	NA	NA	NA	NA	NA	NA	2.03	32.9
10	NA	NA	NA	NA	NA	NA	NA	1.73	33.4
11	NA	NA	NA	NA	NA	NA	NA	2.11	34.2
12	NA	NA	NA	NA	NA	NA	NA	2.03	32.4
13	NA	NA	NA	NA	NA	NA	NA	2.02	37.0
14	NA	NA	NA	NA	NA	NA	NA	2.98	29.4
15	NA	NA	NA	NA	NA	NA	NA	4.17	42.6
16	NA	NA	NA	NA	NA	NA	NA	4.17	42.6

* The attendance index is an average of the number of types of arts performances attended in the previous 12 months. These activities are attending a performance of jazz, classical music, an opera, a musical, a play, or ballet or visiting an art museum/gallery.

** These grand means differ slightly from those presented in Chapter 3 due to sampling error and the calculation of these means from a smaller sample.

Table 6.12: Attendance at each Art by Number of Media Used to Follow the Same Art (Except for Attendance Index* and Reading Literature), Adjusted for Background Variables** : Percentage of Respondents Above or Below the Grand Mean for Participation in the Arts.

	Attendance								
	Jazz	Classical Music	Opera	Musicals	Play	Ballet	Art Museum	Attend. Index	Read Lit.
Grand Mean***	10.2%	12.1%	2.3%	19.3%	11.5%	4.2%	22.3%	.83	57.4%
Number of Media Used for Each Art:									
0	-6.4	-6.9	-1.4	-5.5	-3.3	-1.6	-5.0	-.44	-18.0
1	2.4	1.1	2.8	14.1	8.0	8.2	16.5	-.25	4.7
2	16.9	12.8	6.5	24.0	15.9	NA	NA	-.17	2.0
3	31.5	28.6	23.7	12.8	NA	NA	NA	-.01	8.1
4	NA	NA	NA	NA	NA	NA	NA	.26	12.0
5	NA	NA	NA	NA	NA	NA	NA	.54	24.0
6	NA	NA	NA	NA	NA	NA	NA	.44	21.4
7	NA	NA	NA	NA	NA	NA	NA	.63	21.1
8	NA	NA	NA	NA	NA	NA	NA	.89	22.5
9	NA	NA	NA	NA	NA	NA	NA	1.63	22.3
10	NA	NA	NA	NA	NA	NA	NA	1.31	22.2
11	NA	NA	NA	NA	NA	NA	NA	1.55	22.6
12	NA	NA	NA	NA	NA	NA	NA	1.64	22.2
13	NA	NA	NA	NA	NA	NA	NA	1.38	25.2
14	NA	NA	[illegible]	NA	NA	NA	NA	2.41	19.9
15	NA	NA	NA	NA	NA	NA	NA	4.02	38.5
16	NA	NA	NA	NA	NA	NA	NA	4.02	23.1

* The attendance index is an average of the number of types of arts attended in the past year. These activities are attending a performance of jazz, classical music, an opera, a musical, a play, or ballet or visiting an art museum/gallery.

** The Background factors are income, age, SMSA, ethnicity, number of children, gender and occupation, marital status, education, and number of work hours per week.

*** These grand means differ slightly from those presented in Chapter 3 due to sampling error and the calculation of these means from a smaller sample.

SUMMARY

Analysis of the responses to the questions about arts participation through the media has provided the following conclusions. The mass media reach a wider arts audience, typically twice as large, as do live performances; media reach approximately the same size audience as art museums and galleries for those interested in the visual arts. Except for jazz, television provides each of the art forms a far greater audience than do radio or recordings. Among the performing arts, plays via television capture the the largest audiences, followed by classical music, and by jazz, via either television, radio, or recordings.

Higher levels of education and income are generally the strongest background predictors of using a mass medium to follow an art. In addition, ethnic differences are salient--whites of East European ancestry are more likely to use media to follow most of the arts, while blacks have the highest rate of media usage for jazz.

A factor analysis indicates that patterns of art participation via the media tend to be more strongly organized around types of media than types of art. An exception is jazz where participation through one medium is strongly correlated with listening to it via the other two media.

People who use more types of media per art form or follow more arts per medium tend to share certain social characteristics: college education; higher income households; professional occupation; ethnic status as a white of Eastern European descent (except for jazz).

Finally, participation in an art form via one medium or multiple media tends to be positively associated with attendance at live performances and art museums and with reading literaure. To sum up, participation through the media is not an alternative to direct participation; rather the media tend to supplement participation through attendance at live art events.

Chapter 7

SOCIALIZATION INTO THE ARTS

In this study, we are also concerned with the ways in which people acquire an interest in the arts. It is reasonable to assume that parental encouragement as well as lessons and classes in childhood and adolescence form the basis for appreciation of and participation in the arts in adulthood. The survey included a series of questions relating to early socialization into the arts. The objective of the analysis is to examine the linkage between such socialization experiences and arts participation later in life.

This chapter presents the socialization questions and the tabulations of respondents' answers (Table 7.1), aggregated for the four months (February, August, November, and December) in which the questions were asked. The subsequent analysis was directed toward the following issues:

1) What proportion of the public recalls early socialization experiences related to the arts?

2) Do people of different backgrounds (e.g., race, gender, etc.) vary in their reported socialization experiences in the arts?

3) Do the background factors which best predict socialization experiences also provide the explanation?

4) Do arts socialization experiences tend to fall into patterns? For example, if respondents report having had acting lessons, are they also likely to have had other types of lessons?

5) Do people of different backgrounds tend to have experienced more art classes/lessons or introduction to a range of arts by household members? Do the variables that provide the best predictions also the major provide explanatory factors?

6) Are some of these socialization experiences better predictors than others of attending art events later in life? For example, is visiting an art museum as an adult associated

with frequent visits to art museums with parents or with art classes?

7) Is there an association between the range of socialization experiences and attending art events? If so, is a greater range of socialization experiences a good explanation for attendance at art events in adulthood?

1) SOCIALIZATION QUESTIONS AND RESPONSES

The socialization questions asked whether respondents had ever taken lessons or classes in music, the visual arts, acting or theater, ballet, creative writing, craft-arts, art appreciation or history, or music appreciation. If the answer to any of these was affirmative, the respondent was then asked at what age he/she attended such classes? Unlike other questions in the survey, multiple responses were possible, but the analysis will use only the earliest age at which lessons were started as this represents the first socialization experience in the arts.

A series of questions related to parental influence on the respondent's earliest introduction to the arts. One question focused on adults in the household who listened to classical music or opera in the home, thus introducing the respondent to these arts. Two other questions inquired about early experiences of being taken either to art exhibits, plays, dance or classical music performances. A final question in this series focused on general encouragement to read.

The last group of questions asked about the educational level of the respondent's mother and father. Parents' education levels may be associated with the type and range of socializaton experiences available to the child.u

The questions and the number of responses for each category are shown in Table 7.1. For question 36a, for instance, 2,652 of the 5,683 respondents reported that they had at some time taken a music lesson or class; 1,334 had taken these lessons before the age of twelve; 64 had taken lessons during all age periods. Question 37 refers to experience in the home while growing up. Thus, in response to 37a, 465 respondents recalled that their parents often listened to classical music or opera while 40 respondents gave uncodeable answers. In response to Question 38a, dealing with fathers' education, 1,073 respondents reported their father's educational achievement as 7th grade or less, 1,323 as 12th grade, while 1,131 respondents did not know and 69 gave uncodeable responses.

Table 7.1: Socialization Experiences

-5-

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SOCIALIZATION

36a. The following questions are about lessons or classes you may have taken at any time in your life.

Have you EVER taken lessons or a class in music -- either voice training or playing an instrument?

0 ☐ No 3031

2652 Yes – Did you take those lessons when you were--
(Mark all that apply.)
1 ☐ Less than 12 years old? 1334
2 ☐ 12–17 years old? 1742
3 ☐ 18–24 years old? 476
4 ☐ 25 or older? 274

64 =All

b. (Have you EVER taken lessons or a class) in visual arts such as sculpture, painting, print making, photography, film making, etc.?

0 ☐ No 4348

1335 Yes – Did you take those lessons when you were--
(Mark all that apply.)
1 ☐ Less than 12 years old? 167
2 ☐ 12–17 years old? 710
3 ☐ 18–24 years old? 526
4 ☐ 25 or older? 353

27 =All

c. (Have you EVER taken lessons or a class) in acting or theater?

0 ☐ No 5168

515 Yes – Did you take those lessons when you were--
(Mark all that apply.)
1 ☐ Less than 12 years old? 59
2 ☐ 12–17 years old? 343
3 ☐ 18–24 years old? 185
4 ☐ 25 or older? 56

6 =All

d. (Have you EVER taken lessons or a class) in ballet?

0 ☐ No 5164

419 Yes – Did you take those lessons when you were--
(Mark all that apply.)
1 ☐ Less than 12 years old? 290
2 ☐ 12–17 years old? 115
3 ☐ 18–24 years old? 77
4 ☐ 25 or older? 49

8 =All

e. (Have you EVER taken lessons or a class) in creative writing?

0 ☐ No 4664

1018 Yes – Did you take those lessons when you were--
(Mark all that apply.)
1 ☐ Less than 12 years old? 45
2 ☐ 12–17 years old? 437
3 ☐ 18–24 years old? 561
4 ☐ 25 or older? 176

4 =All

f. (Have you EVER taken lessons or a class) in pottery, leatherwork, weaving, woodworking, or any other craft-art?

0 ☐ No 3923

1759 Yes – Did you take those lessons when you were--
(Mark all that apply.)
1 ☐ Less than 12 years old? 188
2 ☐ 12–17 years old? 884
3 ☐ 18–24 years old? 431
4 ☐ 25 or older? 568

9 =All

g. (Have you EVER taken a class) in art appreciation or art history?

0 ☐ No 4589

1094 Yes – Did you take those lessons when you were--
(Mark all that apply.)
1 ☐ Less than 12 years old? 47
2 ☐ 12–17 years old? 369
3 ☐ 18–24 years old? 702
4 ☐ 25 or older? 125

4 =All

h. (Have you EVER taken a class) in music appreciation?

0 ☐ No 4522

1161 Yes – Did you take those lessons when you were--
(Mark all that apply.)
1 ☐ Less than 12 years old? 127
2 ☐ 12–17 years old? 553
3 ☐ 18–24 years old? 582

10 =All

CHECK ITEM D

Are either of respondent's parents present during asking of 37a–38b?

0 ☐ No } Ask 37a 5254
1 ☐ Yes } 291

54

37a. The following questions are about activities in the home when you were growing up.

Did your parents -- or other adult members of the household -- listen to classical music or opera often, occasionally, or never?

1 ☐ Often 465
2 ☐ Occasionally 1246
3 ☐ Never 3938

40

b. Take you to art museums or galleries often, occasionally, or never?

1 ☐ Often 258
2 ☐ Occasionally 1640
3 ☐ Never 3753

32

c. Take you to plays, dance or classical music performances (often, occasionally, or never)?

1 ☐ Often 280
2 ☐ Occasionally 1506
3 ☐ Never 3860

37

d. Encourage you to read books which were not required for school or religious studies (often, occasionally, or never)?

1 ☐ Often 2266
2 ☐ Occasionally 1605
3 ☐ Never 1883

29

CHECK ITEM E

Look at Control Card items 13a, b, and c to determine whether respondent's parents are household members.

1 ☐ Neither parent is household member – *Read* Ⓐ *and ASK 38a and 38b.*

2 ☐ Both parents are household members – *Transcribe father's education to 38a and mother's education to 38b based on cc 21 and 22. END INTERVIEW* 4922

3 ☐ Only father is a household member – *Read* Ⓐ *and ASK 38b. Transcribe father's education to 38a from cc 21 and 22.* 386

4 ☐ Only mother is a household member – *Read* Ⓐ *and ASK 38a. Transcribe mother's education to 38b based on cc 21 and 22.* 38

201

Ⓐ Now I'd like to ask you a question about your parent's education. This information, along with the other information in this survey, will be used to study the relationship between these things and participation in the arts.

38a. What is the highest grade (or year) of regular school your FATHER completed?

1 ☐ 7th grade or less 1073
2 ☐ 8th grade 726
3 ☐ 9th–11th grades 541
4 ☐ 12th grade 1223
5 ☐ College (did not complete) 324
6 ☐ Completed college (4+ years) 596
7 ☐ Don't know 1131

69

b. What is the highest grade (or year) of regular school your MOTHER completed?

1 ☐ 7th grade or less 920
2 ☐ 8th grade 707
3 ☐ 9th–11th grades 637
4 ☐ 12th grade 1695
5 ☐ College (did not complete) 402
6 ☐ Completed college (4+ years) 378
7 ☐ Don't know 878

END THIS LAS INTERVIEW

NOTES

2) POPULATION ESTIMATES OF SOCIALIZATION EXPERIENCES

The responses from the sample in Table 7.1 are generalized in Table 7.2 (after weighting to improve representativeness) to the adult population of the U.S. Table 7.2a presents the population percentages, while Table 7.2b expresses the absolute numbers estimated to give each response. For instance, 47% of the population has had music lessons, and 23% had music lessons before they were 12 years old. Music lessons are by far the most common socializing experience into the arts. Lessons in the visual arts and craft-arts are also relatively common, experienced by about a quarter to three-tenths of the population. About a fifth of the population had lessons or classes in creative writing, art appreciation or history, and music appreciation. A much lower percentage, less than 10%, had lessons in acting or ballet.

As children, only a small percentage (5-10%) of respondents were frequently exposed to classical music, opera, art museums, plays, or dance, by household members, and approximately two-thirds were never exposed to the arts. If these types of parent mediated experiences are relatively rare, another type is quite common--most adult respondents remember being encouraged to read for reading's own sake.

Table 7.2a: Population Estimates for Art Socialization Experiences: Percentages of the Adult Population Exposed to Various Types of Art Socialization Experiences.

		First Lessons or Class at Age :			
Lessons or classes:	Ever	Less than 12 yrs.	12-17yrs.	18-24yrs.	25 yrs. or more
Music (voice or instrument)	47.1%	23.4%	31.2%	8.4%	4.8%
Visual arts (sculpture, painting, etc.)	24.0	3.0	13.2	9.3	6.0
Acting or theatre	9.3	0.9	6.1	3.3	0.9
Ballet	7.2	4.8	1.8	1.2	0.9
Creative writing	18.0	0.9	7.8	10.2	3.0
Pottery, leatherwork, weaving, etc.	31.2	3.3	16.5	7.5	9.6
Art appreciation or art history	19.5	0.9	6.6	12.6	2.1
Music appreciation	20.4	2.1	9.9	10.2	1.8

Parent Mediated	Often	Occasionally	Never
Listen to classical music/opera	8.1%	21.9%	69.6%
Taken to art museums/galleries	4.5	28.8	66.3
Taken to plays/dance/ classical music	5.1	26.1	68.4
Encouraged reading	38.1	28.8	32.7

Table 7.2b: Population Estimates for Art Socialization Experiences, Number of Adults in U.S. Population (in Thousands)

Lessons or classes:	Ever	First Lessons or Class at Age : Less than 12 yrs.	12-17yrs	18-24yrs	25 yrs. or more
Music (voice or instrument)	77,760	38,494	51,465	13,926	7,803
Visual arts (sculpture, painting, etc.)	39,534	4,782	21,690	15,210	10,119
Acting or theatre	15,159	1,656	10,128	5,451	1,563
Ballet	11,814	8,085	3,165	2,199	1,347
Creative writing	29,673	1,266	12,675	16,614	4,968
Pottery, leatherwork, weaving, etc.	51,579	5,583	26,943	12,480	15,834
Art appreciation or art history	32,112	1,338	10,932	20,592	3,510
Music appreciation	33,792	3,591	16,227	16,884	2,754

Parent Mediated	Often	Occasionally	Never
Listen to classical music/opera	13,278	35,937	114,612
Taken to art museums/galleries	7,506	47,175	109,359
Taken to plays/dance/ classical music	8,211	43,140	112,557
Encouraged reading	62,829	47,388	53,931

We can compare these distributions with those for the nation as a whole (Table 7.2d). We find the same relative distribution (e.g. the modal category is high school graduate for both the survey and the nation). However, the general level of education is higher for the U.S. population. For example, over 36% of American males and around 29% of females had at least some college; in contrast, respondents reported 21% and 14% of their fathers and mothers had some college education. This disparity is not surprising as the national figures are based on 1982 data, while respondents' parents would have completed their schooling several decades earlier. Educational achievement, in terms of grades completed, has been rising and this general trend accounts for at least part of the differences between Tables 7.2c and 7.2d. The relatively large group of Don't Know responses on the survey probably also contributes to the disparity between the two sets of figures.

Table 7.2c: Education Levels of Respondents' Parents: Percentage of Respondents Reporting Particular Levels of Education for Each Parent.

Highest grade of education:	Father	Mother
7th grade or less	18.9%	16.2%
8th grade	12.6	12.3
9-11th grade	9.9	11.1
12th grade	21.3	30.6
College (not complete)	5.7	6.9
Completed college	10.5	6.6
Don't know parents' education	20.1	15.6

Table 7.2d: Educational Levels for Men and Women in the U.S.: 1982*

Highest Grade of Education:	Males	Females
7th grade or less	8.9%	8.3%
8th grade	6.9	7.3
9-11th grade	12.5	14.0
12th grade	37.1	41.4
College (not complete)	15.7	14.9
Completed college	21.9	14.4

* Statistical Abstracts, Washington D.C.: Bureau of the Census, 1984.

3) BACKGROUND DIFFERENCES IN SOCIALIZATION EXPERIENCES

Socialization into the arts tends to differ for people with varying social backgrounds. Tables 7.3a and 7.3b present the association between several background variables--income, age, ethnicity/race, gender and education--and socialization experiences. Tables 7.4a and 7.4b show the same associations between socialization experiences and each variable, after adjusting for all the other background variables. For example, those with higher incomes are more likely to have had music lessons (Table 7.3a). However, after adjustment for other factors (Table 7.4a), the income variation is considerably reduced, indicating that much of the influence of income may be due to other associated factors (e.g. education). Following is a discussion of each socialization experience highlighting the major background differences.

Music Lessons

Respondents with at least some college education are much more likely to have taken music lessons at some time. Young adults, females, whites (except of unknown national origins), and the more affluent are also more likely than average to have taken music lessons. Much of variation for income and age, however, is attributable to the impact of other background factors, most likely education.

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Table 7.3a: Art Socialization Through Lessons Or Classes By Selected Background Variables: Percentage Of Respondents Above Or Below The Average Rate Of Having Taken A Class Or Lesson

	Music Lessons	Visual Art Lessons	Acting Lessons	Ballet Lessons	Creative Writing Lessons	Craft-Art Lessons	Art History Lessons	Music Apprec. Lessons
GRAND MEAN =	47.7%	24.1%	9.4%	7.4%	18.2%	31.5%	19.7%	20.9%
INCOME								
Under $10,000	-12.4	-6.1	-0.3	-1.5	-2.7	-10.3	-6.9	-8.1
$10,000 - 14,999	-12.5	-9.5	-4.0	-2.9	-6.8	-10.0	-9.8	-9.5
$15,000 - 19,999	-2.9	-1.8	-0.7	-0.8	-3.0	-0.8	-4.3	-5.2
$20,000 - 29,999	2.7	-0.3	0.1	-0.6	-1.8	3.3	-0.0	1.2
$30,000 - 49,999	10.7	8.4	2.6	2.4	7.9	7.5	9.2	9.2
$50,000 and above	16.4	7.7	4.5	4.6	10.8	7.5	15.7	13.2
No-Ref	[illegible]	-1.8	-2.0	0.8	-2.8	-4.9	-2.4	-2.1
SMSA								
Cent City Of Smsa	-1.2	-0.2	1.5	1.6	1.5	-1.5	0.1	0.5
Smsa, Not Cent City	5.1	2.8	1.5	1.8	2.6	3.4	3.3	[illegible]
Not In Smsa	-5.2	-3.1	-3.0	-3.5	-4.3	-2.8	-4.0	-5.0
AGE								
18 - 24 yrs	13.9	17.1	5.5	3.9	12.7	14.1	2.1	-0.3
25 - 34 yrs	7.2	8.7	2.3	3.0	9.1	7.3	9.8	6.9
35 - 44 yrs	1.1	-3.4	-1.2	1.5	-0.6	1.1	3.8	3.1
45 - 54 yrs	-5.0	-6.6	-1.5	-2.4	-5.7	-4.5	-2.9	0.9
55 - 64 yrs	-11.6	-10.2	-2.9	-4.1	-11.0	-10.5	-9.1	-4.9
65 - 74 yrs	-12.2	-13.0	-3.2	-4.0	-12.5	-14.2	-9.5	-9.0
75 - 96 yrs	-17.2	-17.9	-7.2	-6.8	-15.6	-18.1	-15.1	-13.0
MARITAL								
Married	-1.0	-2.4	-1.6	-0.9	-2.3	-6.8	-0.1	-0.4
Widowed	-11.6	-13.9	-3.7	-4.3	-13.4	-15.4	-12.9	-9.8
Divorced	0.5	0.2	4.1	3.9	5.0	-1.6	1.6	3.8
Seperated	-7.4	-8.5	-4.1	-0.1	-1.9	-8.6	-7.1	-2.8
Never Married	8.0	13.3	5.3	3.1	10.7	9.6	5.9	4.0
ETHRAC								
White Other Origin	4.0	2.3	1.5	1.4	1.5	4.1	0.5	0.4
White Britian Isles	4.6	3.7	1.1	-0.1	2.9	-0.9	6.9	7.3
White W. Europe	-0.3	-2.5	-1.8	-0.1	-1.2	[illegible]	-2.1	-2.9
White E. Europe	2.9	-2.3	-0.8	-0.6	3.1	[illegible]	6.3	6.2
Hispanic	-25.3	-7.0	-2.0	-3.7	-6.3	[illegible]	-8.8	-11.7
Black—Ex. Hispanic	-6.6	-5.8	-2.3	-3.4	-3.9	-7.4	-3.4	0.6
Other Races	-12.9	-3.7	-4.9	-1.1	-3.9	-3.8	0.9	0.4
White Unkn Origins	-16.3	-7.2	-7.6	-4.7	-8.9	-17.9	-8.1	-12.8
SEX								
Male	-3.6	1.3	-1.6	-6.3	0.2	0.5	-0.4	-1.5
Female	3.1	-1.2	1.4	5.5	-0.1	-0.5	0.3	1.3
EDUC								
Grade School	-36.5	-21.2	-8.9	-7.0	-17.4	-26.9	-18.8	-19.5
Attended Hs	-20.8	-15.8	-7.7	-5.6	-15.8	-15.7	-16.9	-15.4
Hs Grad	-2.5	-5.5	-3.3	-2.2	-9.5	1.3	-10.4	-8.8
Attended College	16.5	11.5	4.7	5.9	12.1	10.5	8.1	8.1
College Grad	21.7	21.4	12.0	6.2	28.0	11.1	36.2	27.7
Atended Grad School	27.8	25.6	13.9	6.7	29.9	16.5	37.9	39.7
WORKHRS								
None	-5.1	-5.0	-1.0	0.2	-5.2	-5.1	-4.7	-5.1
1 to 29	9.5	8.0	4.7	3.3	4.8	6.9	4.7	2.1
30 to 39	2.0	2.7	0.5	0.6	3.6	-0.3	5.8	6.7
40 hrs	-1.6	-0.4	-1.0	-1.0	1.7	1.5	-0.7	1.9
41 to 49	5.3	8.2	1.3	1.2	5.1	6.5	6.8	2.5
50 or more	10.5	6.2	0.8	-2.9	6.6	6.8	[illegible]	7.7
WORK								
Professional	22.3	20.4	7.3	5.2	23.6	14.0	29.6	27.0
Managerial	6.1	5.8	3.3	-1.0	11.9	6.9	12.8	10.5
Sales, Clerical	9.0	4.5	2.7	3.9	4.6	4.8	-0.1	4.4
Craftsmen	-6.8	-0.8	-3.9	-6.0	-7.5	2.7	-6.3	-6.7
Operatives	-14.6	-9.1	-5.4	-6.4	-10.6	-3.6	-12.6	-12.8
Laborers	-5.6	-2.3	-2.5	-6.9	-8.4	0.1	-7.1	-8.3
Service Workers	1.0	-0.3	-0.0	1.5	0.7	-1.1	-3.2	-3.6
Not Working	-0.5	2.1	1.4	2.3	-0.9	-0.3	-1.1	-2.6
Keeping House	-6.4	-9.7	-2.5	0.3	-8.9	-7.5	-6.5	-5.5
Student	11.3	17.8	7.6	12.2	23.4	11.1	10.8	2.2
Retired	-19.0	-14.3	-5.3	-6.6	-18.4	-17.7	-12.7	-13.3
NCHILDRN								
No Children	-0.9	-0.5	0.6	-0.8	-0.1	-1.0	-1.1	-0.2
One 6-11 yrs	-3.2	-5.2	-5.1	0.7	-8.6	-4.3	-2.6	-2.8
Two or+ 6-11 yrs	-3.1	0.7	-5.6	0.9	-1.3	5.1	6.3	5.4
One Under 6	3.3	-0.7	1.7	3.6	2.4	2.0	4.5	2.8
One 0-5, One 6-11	2.2	0.4	-2.2	3.8	-1.1	0.3	-1.1	-2.6
One 0-5, Two or+ 6-11	4.8	0.5	-3.6	3.4	2.2	2.1	-0.4	-7.5
Two or+ 0-5	15.4	15.6	3.2	2.9	9.6	11.1	10.1	5.0
Two or+ 0-5, One 6-11	5.6	5.4	3.3	-0.7	5.8	10.1	7.0	0.7
Two or+ 0-5, Two or+ 6-11	-13.2	3.5	-7.0	-4.8	9.2	12.3	1.2	-0.2

Visual Art Lessons

Those with at least some college education are more likely to have taken art as are young adults and those earning more than $20,000. In addition, whites of British Isles decent and unknown origins are somewhat more likely than the average to take these lessons. However, much of the predictability by income is due to associated factors, such as education.

Acting or Theater Classes

Those with higher level of education are considerably more likely than the average to have taken acting or theater classes. Those earning at least $30,000, young adults, and to a lesser extent, females and whites of British and "other" countries are also somewhat more likely than average to have taken such classes.

Ballet Lessons

The strongest of the five predictors are gender and education-- females and those with at least some college education are the most likely to have taken lessons or classes in ballet. Those with higher incomes and young adults also are more likely than average to have taken ballet lessons or classes. On the other hand, Hispanics, blacks, and whites of unknown national origins are the ethnic-racial groups least likely to have had ballet training.

Creative Writing Lessons

Younger adults and those with higher education levels are much more likely than the average to have taken creative writing lessons or classes. Whites (except of unknown national origins) also tend have taken creative writing courses. While the more affluent also tend more than the average

Table 7.4a: Art Socialization Through Lessons Or Classes By Selected Background Variables, Adjusted For Background Factors: Percentage of Respondents Above or Below the Average Rate of Having Taken a Class or Lesson

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	Music	Visual Art	Acting	Ballet	Creative Writing	Craft-Art	Art/Apprec. History	Music Apprec.
GRAND MEAN =	47.7%	24.1%	9.4%	7.4%	18.2%	31.5%	19.7%	20.9%
INCOME								
Under $10,000	-3.5	-1.5	1.7	-0.4	2.4	-1.9	-0.4	-1.9
$10,000 - 14,959	-4.1	-3.5	-1.3	-2.7	-0.2	-3.1	-3.1	-3.2
$15,000 - 19,999	1.3	0.9	0.9	0.3	0.7	1.5	0.4	-0.4
$20,000 - 29,999	1.3	-0.9	0.1	-0.7	-2.0	1.6	0.1	1.1
$30,000 - 49,999	3.2	0.1	0.1	0.6	1.3	1.9	1.5	2.2
$50,000 and above	4.5	-0.5	-1.0	1.0	0.3	-0.3	2.7	0.7
Nr-Ref	-7.9	-0.2	-1.8	0.9	-1.3	-6.5	-1.2	-2.1
SMSA								
Cent City Of Smsa	1.3	0.4	1.4	2.3	1.2	-0.1	0.4	0.5
Smsa, Not Cent City	1.2	0.1	0.4	0.9	-0.0	0.8	0.4	1.0
Not In Smsa	-2.5	-0.5	-1.7	-3.0	-0.9	-0.9	-0.7	-1.6
AGE								
18 - 24 yrs	13.3	16.1	3.6	2.6	12.8	12.4	2.2	-0.5
25 - 34 yrs	1.4	5.1	0.7	1.3	5.8	3.4	4.7	1.8
35 - 44 yrs	-2.6	-5.3	-0.6	1.1	-1.7	-1.5	1.4	0.2
45 - 54 yrs	-4.4	-5.7	-0.5	-1.3	-5.5	-4.6	-2.0	1.1
55 - 64 yrs	-8.2	-7.5	-1.6	-2.3	-8.9	-8.5	-5.6	-1.7
65 - 74 yrs	-2.8	-7.8	-1.3	-2.1	-8.5	-6.9	-3.3	-1.1
75 - 96 yrs	-4.9	-11.4	-5.4	-4.9	-10.8	-7.5	-7.4	-3.6
MARITAL								
Married	0.4	-0.9	-0.8	-0.3	-0.4	0.1	-0.3	-0.8
Widowed	4.0	2.3	0.7	-2.6	0.4	0.2	-0.6	0.2
Divorced	1.3	2.9	3.5	2.1	5.4	-0.1	1.6	2.5
Separated	0.6	-1.9	-1.8	-0.0	3.4	-2.8	-1.8	0.7
Never Married	-3.2	1.3	1.4	1.2	-0.9	-0.1	0.8	1.3
ETHRAC								
White Other Origin	2.4	1.2	1.3	1.3	1.0	2.7	-0.2	-0.3
White British Isles	2.2	2.4	-0.1	0.0	0.9	-1.3	3.2	3.5
White W. Europe	0.5	-1.1	-1.3	0.7	0.5	-0.6	-0.9	-2.4
White E. Europe	2.4	-1.7	-1.3	-0.4	3.4	0.5	4.3	3.2
Hispanic	-17.4	-2.6	0.4	-3.5	-2.6	-7.1	-2.1	-4.0
Black—Ex. Hispanic	-0.8	-2.7	-1.5	-3.9	-2.4	-3.4	0.6	4.7
Other Races	-17.7	-10.0	-7.5	-5.1	-11.5	-7.6	-7.0	-6.0
White Unkn Origins	-8.9	-2.7	-4.8	-4.3	-4.6	-13.3	-2.6	-6.3
SEX								
Male	-5.5	-0.5	-2.6	-8.0	-1.6	-1.1	-2.9	-3.7
Female	4.8	0.4	2.3	7.0	1.4	1.0	2.6	3.3
EDUC								
Grade School	-28.5	-12.6	-7.2	-3.0	-9.9	-18.4	-13.8	-15.6
Attended HS	-17.5	-12.0	-7.7	-4.5	-12.4	-12.4	-14.6	-13.5
Hs Grad	-3.1	-5.9	-3.7	-3.0	-9.4	0.6	-10.0	-4.5
Attended College	13.3	7.7	3.7	4.5	8.6	7.3	6.5	6.9
College Grad	18.5	18.0	12.1	5.7	24.2	8.1	32.8	25.1
Attended Grad School	26.1	23.6	15.8	7.2	27.1	14.4	33.3	36.3
WORKHRS								
None	0.7	3.1	1.8	0.4	1.8	3.9	-0.6	-1.7
1 to 29	2.5	1.9	1.7	0.2	-1.0	0.4	2.7	0.0
30 to 39	-2.6	-1.9	-1.9	-1.7	-0.5	-5.8	0.8	5.1
40 hrs	-4.0	-4.8	-2.4	-0.5	-1.6	-4.1	-2.2	0.5
41 to 49	-0.4	0.5	-1.2	1.4	-1.7	-1.7	1.7	-1.5
50 or more	6.2	-2.0	-1.5	0.0	-1.1	-1.4	0.5	2.7
WORK								
Professional	4.9	6.2	-0.8	0.6	6.2	5.6	5.9	4.3
Managerial	-1.3	2.1	1.9	-0.2	6.5	5.0	2.8	1.0
Sales, Clerical	1.5	1.7	1.1	-0.6	1.6	1.4	4.5	-0.5
Craftsmen	0.5	3.8	1.5	1.5	-2.2	5.6	-0.7	-1.1
Operatives	-4.3	-2.0	0.6	-1.0	-2.7	2.3	-3.7	-4.4
Laborers	3.9	1.9	2.4	0.5	-3.0	4.3	0.3	-0.6
Service Workers	0.7	-0.4	0.6	[illegible]	1.7	-1.2	-2.2	-2.7
Not Working	2.7	-0.1	1.1	3.9	-0.4	-3.3	4.7	4.0
Keeping House	-2.6	-4.6	-2.7	-3.6	-4.7	-4.5	-0.3	0.2
Student	-4.7	-4.7	-3.0	5.4	3.0	-6.3	-0.3	-5.2
Retired	-3.3	-3.6	-0.4	3.9	-3.3	-4.2	0.5	-0.9
HCHILDRN								
No Children	0.3	0.4	0.7	-0.5	1.2	0.5	0.2	0.5
One 6-11 yrs	-3.1	-2.6	-4.0	0.6	-7.6	-5.3	-3.5	-3.4
Two or+ 6-11 yrs	-3.6	2.7	-4.6	0.8	-1.8	4.1	4.3	4.2
One Under 6	-3.0	-7.8	0.2	1.7	-4.6	-5.0	-0.1	-0.3
One 0-5, One 6-11	-0.3	-1.3	-1.8	3.9	-3.8	-4.1	-4.1	-3.8
One 0-5, Tw or+ 6-11	5.3	0.0	-3.8	2.4	-0.5	0.7	-3.1	-7.4
Two or+ 0-5	6.1	6.4	0.9	1.6	0.2	2.5	1.9	-0.5
Two or+ 0-5, One 6-11	3.3	3.9	3.5	-0.9	3.7	6.1	3.5	-0.6
Two or+ 0-5, Two or+ 6-11	-10.2	4.2	-6.0	-4.7	8.5	12.3	0.2	0.0

to have had such training, this trend disappears if other background factors are held equal. Probably education accounts at least partially for the original (unadjusted) association.

Crafts Lessons

Those with higher levels of education and younger adults are more likely to have taken lessons or classes in pottery, leatherwork, weaving, woodworking, or any other craft-arts. Respondents with higher incomes are also more likely to have attended such lessons, but this trend is largely attributable to other factors, such as education. Whites of "other" countries and of Eastern Europe have a greater than average likelihood to have taken craft lessons, while Hispanics and whites of unknown national origins are markedly less likely to have taken such lessons.

Art Appreciation or Art History Course

Educational level is a strong predictor of experience with art appreciation or art history courses; a person with post graduate training is about six times as likely as a high school graduate to have taken such a class. Excluding the youngest age group, the likelihood of having ever taken such courses declines with age, but increases with income. Much of the variation due to age and income is attributable to the influence of other factors, probably education. Whites of British or Eastern European background and "other" races are more likely than the average to have taken such classes, but the relatively high participation of "other" races diminishes when other factors are controlled.

Music Appreciation Classes

As in the case of art appreciation and art history courses, higher educational levels are strongly associated with attendance at music appreciation classes. Whites of British and Eastern European origins as well as blacks are the ethnic-racial groups most likely to have taken such classes. Those aged 25-54 as well as the more affluent are also more likely than the average to have taken a music appreciation class, but the differences by age and income are largely the result of associated factors such as education.

Introduction to Classical Music or Opera

Those earning $50,000 or more are much more likely to have had parents who often listened to classical music or opera. The likelihood also rises, but more gradually, among those with increased education. People aged 45-64 and females are somewhat more likely than the average to have had parents who were frequent listeners. (Unless families with children of different sexes actually have different listening patterns, the higher rate for females may be a function of selective memory—possibly males are more likely to report "occasionally" for experiences which females recall as "often").

Introduction to Art Museums or Galleries

The better-educated are more likely to have had parents who often took them to art museums or galleries. Age and income are relatively weak predictors, and are even weaker after adjustment for the impact of other factors. Whites of Eastern European descent and "other" races are somewhat more likely than the average to have had parents who frequently took them to art museums or galleries. Females are slightly more likely than males to have had parents who often took them to art displays.

Table 7.3b: Socialization Through Parental Introduction Or Encouragement Of Selected Arts: Percentage of Respondents Above or Below the Average Rate Who reported Parental Introduction or Encouragement.

	Home Listening Classical Opera	Taken to Art Museums Galleries	Taken to Plays Dance	Encouraged Reading Books
GRAND MEAN =	3.2%	4.6%	5.0%	38.7%
INCOME				
Under $10,000	-0.9	-0.3	-0.3	-7.8
$10,000 - 14,999	-0.8	-1.7	-1.5	-8.0
$15,000 - 19,999	-0.8	-1.3	-0.1	-3.0
$20,000 - 29,999	-1.5	0.2	0.0	0.9
$30,000 - 49,999	1.2	1.0	-0.3	6.3
$50,000 and above	8.8	2.1	3.7	18.1
Na-Ref	0.6	1.2	2.1	-2.4
SMSA				
Cent City Of Smsa	0.6	1.2	0.5	-0.1
Smsa, Not Cent City	2.0	0.6	0.6	3.8
Not In Smsa	-2.8	-1.7	-1.2	-4.5
AGE				
18 - 24 yrs	-1.4	1.0	0.3	3.7
25 - 34 yrs	-0.5	-0.2	-1.2	5.3
35 - 44 yrs	-1.3	0.5	-0.0	-0.7
45 - 54 yrs	2.1	0.2	-0.3	-3.1
55 - 64 yrs	2.0	-0.0	0.4	-2.2
65 - 74 yrs	0.5	-1.2	2.3	-6.3
75 - 96 yrs	-0.4	-2.8	0.5	-8.9
MARITAL				
Married	-0.5	-0.8	-0.3	-0.5
Widowed	3.9	0.7	2.4	-6.5
Divorced	1.1	0.5	-1.8	-0.9
Separated	-3.8	-1.0	-2.2	-6.1
Never Married	0.1	2.1	0.7	5.0
ETHRAC				
White Other Origin	0.5	0.0	0.5	2.0
White British Isles	1.8	0.1	1.2	3.0
White W. Europe	0.8	0.1	-1.0	0.2
White E. Europe	1.2	6.2	1.2	8.6

Hispanic	-1.4	-2.8	-2.1	-16.1
Black—ex. Hispanic	-4.4	-0.4	-1.3	-5.2
Other Races	1.3	1.9	1.4	-2.0
White Unkn Origins	-4.9	-3.9	-3.1	-10.3
SEX				
Male	-1.8	-1.2	-2.2	-5.8
Female	1.6	1.1	1.9	5.0
EDUC				
Grade School	-5.0	-3.8	-3.4	-27.0
Attended Hs	-3.0	-3.3	-2.8	-17.5
Hs Grad	-1.6	-1.3	-1.5	-3.9
Attended College	3.1	2.2	2.6	12.6
College Grad	4.3	5.2	4.2	21.3
Attended Grad School	6.5	4.7	4.5	26.3
WORKHRS				
None	0.7	-0.3	0.6	-2.1
1 to 29	0.1	-0.5	0.5	4.2
30 to 39	-0.3	-0.0	-0.4	0.7
40 hrs	-0.9	0.3	-0.7	-1.5
41 to 49 hrs	1.6	0.2	0.6	5.6
50 or more	-0.9	0.9	-1.4	5.2
WORK				
Professional	3.3	2.6	2.7	16.2
Managerial	1.1	1.4	0.4	7.5
Sales, Clerical	0.7	1.6	0.5	7.9
Craftsman	-2.2	-2.2	-2.6	-10.8
Operatives	-3.3	-3.1	-2.9	-15.3
Laborers	-2.8	-1.6	-3.1	-13.9
Service Workers	-2.2	-0.3	-0.8	-0.3
Not Working	0.3	-0.6	-0.7	1.3
Keeping House	1.3	0.2	1.7	-3.6
Student	3.0	4.5	2.4	21.4
Retired	-1.9	-2.8	-1.3	-9.0
NCHILDRN				
No Children	0.8	0.6	0.8	-0.3
One 6-11 yrs	0.8	-0.8	-2.4	0.6
Two or+ 6-11 yrs	-1.1	-1.8	-2.3	4.7
One Under 6	-2.1	-1.7	-2.1	-2.5
One 0-5, One 6-11	-3.1	-3.4	-1.1	3.6
One 0-5, Two or+ 6-11	-6.5	-3.3	-4.1	-11.9
Two or+ 0-5	-3.1	-0.4	-1.8	6.5
Two or+ 0-5, One 6-11	-5.1	-1.9	-2.0	-1.2
Two or+ 0-5, or+ 6-11	-3.8	-2.3	-1.2	3.1

Introduction to Plays, Dance, or Classical Music Performances

Those with at least some college education and those earning at least $50,000, most commonly had parents who often took them to performances of plays, dance, classical music. Females and those aged 68-74 are somewhat more likely, while whites of Eastern European origin and "other" races are slightly more likely than average to have had such socialization experiences.

Encouragement to Read

Those with higher levels of education are much more likely to report that their parents frequently encouraged them to read books. Females, individuals in the higher income brackets, young adults, and whites (except of unknown national origin) are also more likely to recall that their parents often encouraged them to read. However, after adjustment for other background variables, age and income variations are considerably small, indicating that other factors (most likely education) accounts for a considerable portion of the initial differences.

Table 7.4b: Socialization Through Parental Introduction Or Encouragement Of Selected Art: Percentage Of Respondents Above And Below Average Who Reported Parental Introduction Or Encouragement

	Home Listening Classical Opera	Taken to Art Museums Galleries	Taken to Plays Dance	Encouraged Reading Books
GRAND MEAN =	8.2%	4.6%	5.0%	38.7%
INCOME				
Under $10,000	0.8	0.5	0.4	-1.0
$10,000 - 14,999	0.9	-0.3	-0.6	-1.1
$15,000 - 19,999	0.4	-0.4	0.8	0.9
$20,000 - 29,999	-1.4	0.3	0.3	0.1
$30,000 - 49,999	-0.5	-0.2	-1.5	0.1
$50,000 and above	5.3	-0.5	1.2	7.7
Na-Ref	0.1	0.8	1.8	-3.1
SMSA				
Cent City Of Smsa	0.8	2.0	0.4	0.8
Smsa, Not Cent City	1.3	0.1	0.3	0.9
Not In Smsa	-2.2	-0.9	-0.7	-1.6
AGE				
18 - 24 yrs	-2.2	0.4	-0.6	0.5
25 - 34 yrs	-0.5	-0.3	-1.7	-0.2
35 - 44 yrs	-1.4	0.9	0.2	-4.2
45 - 54 yrs	2.3	0.4	-0.3	-1.6
55 - 64 yrs	2.6	0.2	0.7	3.0
65 - 74 yrs	1.3	-0.7	3.5	3.2
75 - 96 yrs	-0.6	-2.8	1.5	3.3
MARITAL				
Married	-0.5	-0.5	0.2	-0.0
Widowed	4.2	2.1	0.4	-0.4
Divorced	-0.1	-0.4	-2.8	-2.7
Separated	-2.6	-0.9	-1.9	-1.5
Never Married	0.3	1.0	0.3	1.2
ETHRAC				
White Other Origin	0.4	-0.1	0.3	0.8
White British Isles	0.8	-0.5	0.3	-0.4

White W. Europe	0.6	0.3	-1.0	0.6
White E. Europe	0.1	5.6	0.4	7.5
Hispanic	1.2	-1.5	-0.7	-6.8
Black—ex. Hispanic	-3.6	-0.0	-0.2	-0.4
Other Races	0.1	0.7	1.2	-8.1
White Unkn Origin	-3.1	-2.2	-2.0	-3.2
SEX				
Male	-2.1	-1.5	-2.6	-8.7
Female	1.8	1.3	2.3	7.6
EDUC				
Grade School	-6.4	-3.6	-4.9	-25.4
Attended Hs	-3.7	-3.4	-3.6	-17.1
Hs Grad	-1.5	-1.4	-1.6	-4.3
Atteded College	3.7	2.0	3.3	11.9
College Grad	4.6	5.5	4.9	20.9
Attended Grad School	7.3	5.3	5.8	27.6
WORKHRS				
None	1.2	-0.1	0.5	-2.3
1 to 29	-0.6	-1.2	-0.4	0.8
30 to 39	-2.2	-0.7	-1.0	-2.3
40 hrs	-1.1	0.4	-0.3	0.2
41 to 49 hrs	1.2	-0.1	0.9	5.4
50 or more	-0.9	1.0	-0.8	6.4
WORK				
Professional	0.1	-1.1	0.3	-1.6
Managerial	-0.0	-0.2	0.6	-0.2
Sales, Clerical	0.0	0.3	-0.5	0.3
Craftsman	1.8	-0.2	1.5	-1.4
Operatives	1.3	-0.8	0.9	-5.0
Laborers	1.8	0.8	0.8	-3.1
Service Workers	-0.6	-0.0	-0.1	-0.0
Not Working	0.9	0.2	-0.0	8.5
Keeping House	-1.1	0.5	-0.5	-2.7
Student	0.1	0.9	-0.6	14.0
Retired	-1.8	0.1	-1.4	4.9
NCHILDRN				
No Children	0.4	0.6	0.7	-0.3
One 6-11 yrs	1.8	-0.7	-2.1	2.4
Two or+ 6-11 yrs	0.2	-1.6	-2.0	6.0
One under 6	-1.1	-1.7	-1.8	-3.8
One 0-5, One 6-11	-2.0	-2.8	-0.5	4.3
One 0-5, Two or+ 6-11	-5.6	-3.0	-3.3	-9.4
Two or+ 0-5	-2.6	-0.6	-1.7	2.3
Two or+ 0-5, One 6-11	-4.1	-1.6	-1.5	-0.1
Two or+ 00-5, Two or+ 6-11	-3.3	-2.2	-0.7	7.0

4) DIMENSIONS OF ART SOCIALIZATION EXPERIENCES

Socialization experiences tend to cluster into distinct patterns. That is, certain groups of socialization experiences can be predicted if a single experience is known. A factor analysis of socialization experiences reveals two such clusters. (A third cluster is not relevant for our present analyses since it shows that educational levels of respondents' mothers tend to be but does not include any art socialization experiences.)

The variables encompassed by these two clusters can be either read from Table 7.5 or from Diagram 7.1. The variables which are highly correlated with the hypothetical factor (marked with an asterisk) are interpreted as being part of the cluster. The same relationship can be seen in the diagram. Those variables which are most strongly correlated with the first and second factor are farther to the right of the horizontal axis and farther up on the vertical axis, respectively.

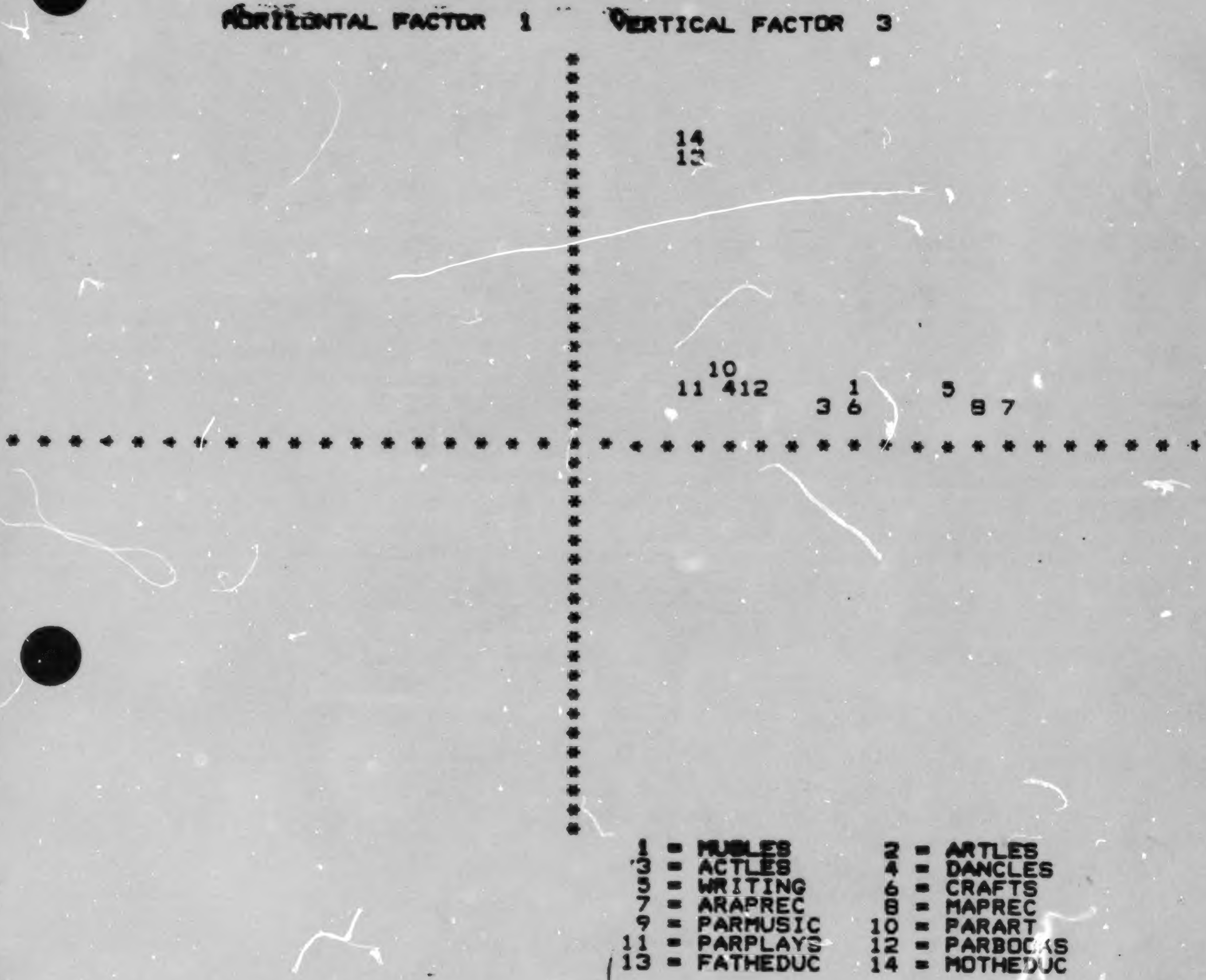
The first cluster tightly groups certain lessons or classes: those in music appreciation, art appreciation/history, creative writing, and visual arts (visual arts is obscured in the diagram by creative writing). To a lesser extent, lessons or classes in craft-arts, music, and theater also fall into this cluster. However, lessons in ballet and parental-mediated experiences are not part of this cluster. Thus, the factor analysis suggests that, within this cluster, persons who have had one type of arts class are also more likely to have several other arts classes.

The second cluster groups childhood socialization experiences in the arts that were provided by household members. Parental introduction to the arts by through often listening to classical music or opera in the home, taking the child to art museums, and taking the child to performances of plays, dance or classical music, tend to be associated events. To a lesser extent, parents' encouragement of reading for its own sake is also associated with this cluster. In terms of the types of arts socialization experiences provided by parents, the respondents who had experienced on type of parental-mediated arts socialization also tended to have had others.

Table 7.5: Dimensions of Art Socialization Experiences: Varimax Rotated Factor Matrix.

	Factor 1	Factor 2	Factor 3
Music Class	*.440	.259	.150
Visual Arts Class	*.564	.132	.127
Theater Class	*.400	.164	.080
Ballet Class	.249	.232	.111
Creative Writing Class	*.576	.138	.137
Craft-art Class	*.443	.138	.085
Art Apprec./History	*.661	.168	.081
Music Apprec. Class	*.607	.191	.056
Clas. Music/Opera (Home)	.151	*.603	.123
Art Museums Visits	.217	*.647	.162
Art Performances	.200	*.684	.111
Encouraged Reading	.261	*.432	.145

Diagram 7.1: Plot of First and Second Factors of Art Socialization Experiences



5) BACKGROUND DIFFERENCES IN A RANGE OF ART SOCIALIZATION EXPERIENCES

People differ in the variety of art lessons and classes in which they were involved in childhood as well as in the variety of art forms to which they were exposed by members of the household. The question arises to whether these differences in the range of socialization experiences show a pattern in terms of a person's social background. For example, do persons of particular ethnic backgrounds tend to have a broader range of such socialization experiences?

The factor analysis above suggests that art socialization experiences tend to form patterns organized around either parental action or classes. Thus, the following analysis addresses the question of social backgrounds by examining two indices: the first is based on the number of reported art lessons and classes, and the second on the number of arts activities encouraged or introduced early in the respondent's life. The data for this analysis can be examined in Table 7.6 and Table 7.7 below. The latter table presents figures adjusted for other background variables.

Index of Art Lessons and Classes

This scale is based on each respondent's reported experience in classes or lessons for eight types of art forms: music (voice or instrument), visual arts, acting or theater, ballet, creative writing, a craft-art, art appreciation/history, and music appreciation. The national average, indicated by the grand mean, is quite low (less than two types of classes or lessons), but certain social characteristics fall considerably above and below this average.

Better educated persons, high income persons, younger adults, and

Table 7.6: Indices of Art Socialization Experiences by Selected Background Factors: Above or Below the Grand Mean of Number of Socialization Experiences.

	Lessons & Classes in the Arts	Parents Introduce Arts
GRAND MEAN	1.8	0.6
Income:		
Under $10,000	-0.5	-0.1
$10,000 - $14,999	-0.7	-0.1
$15,000 - $19,999	-0.2	-0.1
$20,000 - $29,999	0.0	0.0
$30,000 - $49,999	0.6	0.1
$50,000 and over	0.8	0.3
Not applicable	-0.2	0.0
SMSA:		
Central city of SMSA	0.0	0.0
SMSA, not central city	0.2	0.1
Not in SMSA	-0.3	-0.1
Age:		
18 - 24 years	0.7	0.0
25 - 34 years	0.5	0.0
35 - 44 years	0.1	0.0
45 - 54 years	-0.3	0.0
55 - 64 years	-0.7	0.0
65 - 74 years	-0.8	-0.1
75 - 96 years	-1.1	-0.1
Marital:		
Married	-0.1	0.0
Widowed	-0.9	0.0
Divorced	0.2	0.0
Separated	-0.4	-0.1
Never married	0.6	0.1
Ethnic-Race:		
White, other origin	0.2	0.0
White, British Isles	0.2	0.1
White, W. Europe	-0.1	0.0
White, E. Europe	0.1	0.2
Hispanic	-0.8	-0.2
Black (exclude Hispanic)	-0.3	-0.1
Other races	-0.3	0.0
White, unknown origins	-0.8	-0.2
Sex:		
Male	-0.1	-0.1
Female	0.1	0.1

Education:		
Grade School	-1.6	-0.4
Attended High School	-1.1	-0.3
High School Graduate	-0.4	-0.1
Attended College	0.8	0.2
College Graduate	1.7	0.4
Attended Grad School	2.0	0.4
Work Hours:		
None	-0.3	0.0
1 - 29	0.4	0.0
30 - 39	0.2	0.0
40 hours	0.0	0.0
41 - 49	0.4	0.1
50 or more	0.4	0.0
Work:		
Professional	1.5	0.3
Managerial	0.6	0.1
Sales, Clerical	0.3	0.1
Craftsman	-0.4	-0.2
Operatives	-0.8	-0.3
Laborers	-0.4	-0.2
Service Workers	-0.1	0.0
Not Working	0.0	0.0
Keeping House	-0.5	0.0
Student	0.9	0.3
Retired	-1.0	-0.2
# of Children:		
None	0.0	0.0
One, 6 - 11 years	-0.3	0.0
Two+, 6 - 11 years	0.1	0.0
One, under 6	0.2	-0.1
One, 0 - 5/One, 6 - 11	0.0	0.0
One, 0 - 5/Two+, 6 - 11	0.0	-0.3
Two+, 0 - 5	0.7	0.0
Two+, 0 - 5/One, 6 - 11	0.4	-0.1
Two+, 0 - 5/Two+, 6 - 11	0.0	0.0

higher status white-collar workers report having experienced more types of art classes and lessons. Sharp distinctions in participation are also evident within marital, ethnic, and number of children categories.

After adjustment for the impact of the other factors (Table 7.7), the variation in the range of classes drops considerably within income, SMSA, older age, marital status, work hours, occupation, and number of children groups. These factors are then better predictors than explanatory factors. (However, note that some subgroups such as "other" race, younger adults, and Hispanics remain low or decrease relative to the average.) Although the variation in range of classes predicted by education drops somewhat as well, education is clearly the strongest explanatory factor among the ten and may account for the lesser impact of other variables after adjustment.

Index of the Range of Arts Introduced or Encouraged in Childhood

This second scale is based on a count of the number of types of arts experiences which household members often provided while the respondents were growing up. The four types of arts experiences are listening to classical music or opera at home, going to art museums or galleries, attending performances of plays, dance or classical music, and, finally, encouragement of reading of literature.

Most of the factors show little variation from the average in terms of arts experience provided by household members. However, the better-educated and more affluent are clearly more likely than average to have had such experience. Occupation, ethnicity and number of children also show some differences.

When other factors are equal, income loses much of its predictive ability, while education continues to be stronly associated with early arts

Table 7.7: Indices of Art Socialization Experiences by Selected Background Factors, Adjusted for Background Factors: Above or Below the Grand Mean of Number of Experiences.

	Lessons & Classes in the Arts	Parents Introduce Arts
GRAND MEAN	1.8	0.6
Income:		
Under $10,000	0.0	0.0
$10,000 - $14,999	-0.2	0.0
$15,000 - $19,999	0.1	0.0
$20,000 - $29,999	0.0	0.0
$30,000 - $49,999	0.1	0.0
$50,000 and over	0.1	0.1
Not applicable	-0.2	0.0
SMSA:		
Central city of SMSA	0.1	0.0
SMSA, not central city	0.1	0.0
Not in SMSA	-0.1	-0.1
Age:		
18 - 24 years	0.6	0.0
25 - 34 years	0.2	0.0
35 - 44 years	-0.1	0.0
45 - 54 years	-0.2	0.0
55 - 64 years	-0.4	0.1
65 - 74 years	-0.3	0.1
75 - 96 years	-0.6	0.0
Marital:		
Married	0.0	0.0
Widowed	0.0	0.1
Divorced	0.2	-0.1
Separated	-0.1	-0.1
Never married	0.0	0.0
Ethnic-Race:		
White, other origin	0.1	0.0
White, British Isles	0.1	0.0
White, W. Europe	-0.1	0.0
White, E. Europe	0.1	0.1
Hispanic	-0.4	-0.1
Black (exclude Hispanic)	-0.1	0.0
Other races	-0.7	-0.1
White, unknown origin	-0.4	-0.1
Sex:		
Male	-0.3	-0.2
Female	0.2	0.1

Education:		
Grade School	-1.1	-0.4
Attended High School	-1.0	-0.3
High School Graduate	-0.4	-0.1
Attended College	0.6	0.2
College Graduate	1.5	0.4
Attended Grad School	1.9	0.5
Work Hours:		
None	0.1	0.0
1 - 29	0.1	0.0
30 - 39	-0.1	-0.1
40 hours	-0.2	0.0
41 - 49	-0.1	0.1
50 or more	0.0	0.1
Work:		
Professional	0.3	0.0
Managerial	0.2	0.0
Sales, Clerical	0.0	0.0
Craftsman	0.1	0.0
Operatives	-0.1	0.0
Laborers	0.1	0.0
Service Workers	0.0	0.0
Not Working	0.1	0.1
Keeping House	-0.3	0.0
Student	-0.2	0.1
Retired	-0.2	0.0
# of Children:		
None	0.0	0.0
One, 6 - 11 years	-0.3	0.0
Two+, 6 - 11 years	0.1	0.0
One, under 6	-0.2	-0.1
One, 0 - 5/One, 6 - 11	-0.2	0.0
One, 0 - 5/Two+, 6 - 11	0.0	-0.2
Two+, 0 - 5	0.2	0.0
Two+, 0 - 5/One, 6 - 11	0.2	-0.1
Two+, 0 - 5/Two+, 6 - 11	0.0	0.0

introduction in the household. Ethnic differences (with one exception) as well as differences between white collar and manual occupations largely disappear. In addition to education, gender becomes one of the best explanatory factors for the range of arts socialization experiences in childhood. Males are below average with regard to both art lessons and parental-mediated introductions to the arts, while females tend to be somewhat above average (Table 7.7). Gender difficulties are actually greater after adjustment for other factors, indicating that other associated variables suppressed the unadjusted variation.

6) ART SOCIALIZATION EXPERIENCES AND PARTICIPATING IN THE "CORE" ARTS

One consequence of art socialization experiences might be a greater tendency to participate in the arts as an adult. Possibly, the more critical factor for adult participation in the arts may be the cumulative effects of a range of arts socialization experiences rather than a single type of experience. The following analysis examines each of these possibilities.

If art socialization experiences do influence art participation by adults, we would expect a correlation between these two events. That is, we should be able to predict adult participation in a type of art from a knowledge of socialization in that type of art during childhood. For example, if a person often visited art museums as a child, and it is assumed that this leads to greater adult attendance at art museums, then we would expect a strong correlation between recollections of attendance and his/her recent attendance at art museums. In addition, childhood socialization in other types of arts may also predict adult participation in a particular art form.

Table 7.8 presents the correlations between arts socialization experiences and adult participation in the arts. (Correlations in the range of 0.40 and above will be referred to as strong; correlations of 0.30-0.39 as substantial; correlations of 0.20-0.29 as moderate; correlations of less than 0.20 as weak.)

Jazz Performances

Lessons or classes in the visual arts or creative writing are moderate predictors of attending jazz performances. The other art socialization experiences are weak predictors of such attendance.

Classical Music Performances

Having taken a lesson or class in the visual arts, creative writing, art appreciation/history, or music appreciation, provides a moderate predictor of attending classical music performances as an adult.

Opera Performances

While each of the art socialization experiences is positively related to attending operas as an adult, none of the socialization experiences treated in this study provide more than a weak predictor.

Musicals or Operettas

Lessons and classes in either creative writing, art appreciation/history, or music appreciation are moderately associated with adult attendance at musicals or operettas.

Ballet

Taking ballet classes as a child is a moderate predictor of attending ballet performances as an adult.

Art Museums or Galleries

Numerous art socialization experiences aid in predicting visits to art museums or galleries as an adult. The predictors of moderate strength are lessons or classes in music, theater, creative writing, a craft-art, and music appreciation as well as parental encouragement of reading. In addition, two types of lessons and classes--in the visual arts or art appreciation/history—are substantial predictors of visiting art museums and galleries. Such classes apparently do succeed in transmitting an appreciation of the visual arts. In contrast, being taken to art museums by household members as a child seems generally to have only a weak influence on adult museum attendance.

Reading Literature

Numerous art socialization experiences are also moderate predictors of reading literature as an adult, but the only substantial predictor is the childhood experience of encouragement by household members to read books.

In brief, art socialization experiences provide numerous moderate, and a few substantial, predictors of adult participation in arts, with the notable exception of opera. However, one of the most striking findings is the minimal effect of parental exposure of children to the arts and adult art participation. Classes and lessons (particularly those in art appreciation/history, music appreciation, and creative writing) seem to have a greater influence on this behavior than early art experiences mediated by household members. The notable exception, which constitutes the highest correlation in Table 7.8, is the effect of parental encouragement of reading. This early encouragement seems to have a substantial effect on both reading and, to a lesser degree, art museum attendance as an adult.

Table 7.8: Correlations of Art Socialization Experiences and Adult Participation in the Core Arts: Pearson's r.

	Jazz	Classical Music	Opera	Musical	Play	Ballet	Art Mus.	Read
Music Lessons	.160	.199	.060	.189	.164	.096	.243	.295
Art Lessons	.205	.201	.073	.192	.171	.138	.304	.214
Acting Lessons	.152	.166	.062	.191	.162	.119	.205	.179
Ballet Lessons	.155	.153	.066	.167	.149	.265	.187	.167
Creative Writing	.216	.204	.081	.212	.214	.140	.292	.247
Arts-Crafts	.138	.146	.049	.153	.141	.082	.240	.223
Art Aprec./History	.181	.225	.116	.221	.242	.144	.320	.266
Music Appreciation	.174	.223	.092	.230	.200	.137	.276	.264
Parental Guidance:								
Home: Clas./Opera	.069	.136	.095	.075	.080	.073	.115	.118
Art Visits	.094	.088	.065	.093	.089	.105	.145	.120
Plays	.052	.116	.053	.093	.082	.119	.101	.116
Encouraged Reading	.117	.184	.040	.163	.171	.111	.215	.342
Mother's Education	-.001	.037	.018	.020	.018	.025	.014	-.020

7) INDICES OF SOCIALIZATION AND ARTS PARTICIPATION

We have seen that respondents recalling certain socialization experiences are more likely to participate as adults in some of the arts. Conceivably, a wider number of such experiences might have a cumulative effect. In other words, those who have had a greater variety of art socialization experiences may be more active participants in the arts, that is, participate in a wider range of arts.

Table 7.9 shows the relationship between an index of adult participation in the arts and two indices of art socialization experiences (lessons/class and parental guidance) as well as the education level of the respondent's mother. The arts participation index represents a count of the variety of the seven arts events attended in the previous 12 months. Similarly, the arts education index is a count of the types of classes or lessons taken among eight categories--music, visual arts, theater, ballet, creative writing, craft-art, art appreciation/history, or music appreciation. The parental arts guidance index is a count of four types of arts experience mediated by household members: listening to classical music or opera at home; going to art museums or galleries; going to plays, dances, or classical music; and encouraging the reading of books. Finally, assuming that a mothers with varying education levels provide different types of arts socialization experiences not directly measured by the four categories of parental art guidance, the relationship between the respondent's mother's educational level and the adult participation index is provided.

Examination of the table suggests that each of these variables has a positive relationship with attending a range of arts events. In other words, a greater variety of arts attendance can be predicted among groups who have had a wider range of art lessons/classes, more types of parental introduction to the arts, or a mother with a high level of education. The

Table 7.9: Index of Attending Seven Arts Events by Number of Types of Art Classes or Lessons, Number of Types of Parental Introduction to the Arts, Mother's Education: Above or Below the Grand Mean of Arts Attended in the Previous Twelve Months.

	Attendance Index
GRAND MEAN =	0.8
Number of classes	
0	-0.6
1	-0.3
2	0.0
3	0.3
4	0.8
5	1.0
6	1.4
7	1.9
8	2.4
Parental guidance	
0	-0.3
1	0.3
2	0.7
3	1.1
4	1.1
Mother's education	
11th grade or less	-0.2
High school graduate	0.1
Some college	0.8
College graduate	1.0
Do not know	-0.5

index of art classes or lessons is, however, a much stronger predictor of the variation in the breadth of adult arts participation than is the index of parental guidance or the level of the mother's education.

Table 7.10 also presents the same relationships after adjustment for the influences of associated background variables. Comparison of the variations predicted by the two indices and mother's education, before and after adjustment, suggests the degree to which the variations are attributable to the influence of other factors. In each case, the range of variation drops considerably after adjustment, indicating that other factors account for a large part of the differences in rates predicted by the three indices. However, the basic relationships are unchanged: the index of art classes and lessons remains a relatively strong explanatory factor for attending a range of arts events, whereas the index for parental art guidance and mother's education are quite weak as explanatory factors.

Table 7.10: Index of Attending Seven Arts Events by Number of Types of Art Classes or Lessons, Number of Types of Parental Introduction to the Arts, Mother's Education, Adjusted for Background Factors: Above or Below the Grand Mean of Number of Arts Attended in the Previous Twelve Months.

	Attendance Index
GRAND MEAN =	0.8
Number of classes	
0	-0.3
1	-0.2
2	-0.0
3	0.2
4	0.5
5	0.6
6	1.0
7	1.3
8	1.8
Parental guidance	
0	-0.1
1	0.1
2	0.1
3	0.4
4	0.3
Mother's education	
[illegible] grade or less	-0.0
High school graduate	-0.0
Some college	0.2
College graduate	0.2
Do not know	-0.1

SUMMARY

The extent of the public's early experience with socialization into the arts varies considerably with art forms. Almost one out of two American adults has at sometime had a class or lesson in voice or a musical instrument, while less than one out of ten has had a class in ballet. Approximately two-thirds of the adult population report never having been taken by their parents to art museums, plays, dance performances or classical music concert, nor having listened to classical music or opera in their parents' home. However, two-thirds recall being encouraged to read books often or occasionally.

Marked differences in art socialization experiences are observed among adults with varying social characteristics. Adults with higher levels of education or income are more likely to have had almost every type of socialization experience. In addition, there are clear differences by age, gender and ethnicity evident in the rates of reported experiences. These results suggest differential socialization among generational groups; for males as compared to females, and for members of different ethnic subcultures. Income and education differences may, again, be related to distinct subcultural backgrounds, which persist into adult life.

Art socialization experiences tend to form clusters. Respondents, who grew up in families that frequently went to art museums, for example, were also more likely to be exposed to other art forms and encouraged to read books by their parents. Similarly, those respondents who had taken some types of art classes or lessons were likely to have taken others as well. Moreover, respondents of particular social backgrounds were more likely to have had either parental guidance or classes in a variety of the arts.

Once again, better-educated and wealthier adults tend to report a broader range of experiences.

In comparison to the experiences mediated by one's family of origin, formal instruction through an art class or lesson tends to be a better predictor of adult participation in the arts. Nevertheless, family encouragement of reading books apparently ingrains the habit in many people since it is substantially related to reading literature as an adult. Moreover, a wider range of arts socialization experiences, particularly classes or lessons, is associated with adult arts participation.

Chapter 8

PUBLIC INTEREST IN INCREASED ARTS PARTICIPATION

Attendance at arts events and performances is not the only reflection of interest in the arts. Rather, people who are interested may be discouraged from attendance or indeed, unable to attend because of certain obstables or barriers. These barriers, for example, may include unavailability of transportation or of tickets, as well as cost factors. Presumably, if some of these barriers could be eliminated or lessened, then the potential audience for the arts could participate more fully.

In the earlier chapters we have implicitly described certain obstacles to attendance by describing differential participation in the arts among people with different social backgrounds. For example, in most cases, low educational achievement and lower income are associated with lower participation in the arts. In this chapter, we approach the issue of barriers to participation from the respondents' viewpoint, i.e. the analysis focuses on obstacles perceived by the respondent.

This chapter discusses the barrier questions and the tabulations of the respondents' answers, aggregated for the four months (June, July, November, and December) in which these questions were included in the SPA survey. These tabulations are then analyzed to answer the following questions:

1) How widespread is the adult public's interest in attending arts events?

2) Among those who are interested in attending more often, which factors are perceived as the chief obstacles or barriers?

3) What kind of people are interested in arts performances and events? Do they tend to share certain social characteristics? Do the same social factors that correlate with expressed interest continue to hold up after other factors are taken into account?

4) Does interest in attending specific art events tend to group into clusters? For example, do respondents who wish to attend opera more frequently also want to attend more jazz or classical music performances?

5) In terms of background characteristics, what type of person manifests increased interest in participating in a broad range of arts forms? Do the factors that predict increased interest hold up after other factors are taken into account?

6) Is there an association between interest in attending either a single or a broad range of art forms and actual current attendance? That is, do people interested in participating in the arts actually attend more types of events in the previous 12 months?

1) BARRIER QUESTIONS AND RESPONSES

The barrier questions were designed to identify the extent of arts interest and the major factors that inhibit people from participating in the arts as much as they would like. Thus, the first question asked about the respondents' interest in increased attendance at various art forms. For those who reported such interest, an open-ended follow-up question covered reasons for not attending more often. The precoded categories included the following types of problems:

External	-- Tickets unavailable or too expensive; locally unavailable or too far away; transportation problems; babysitter problems
Personal	-- Feel uncomfortable at performance; fear of crime; no companion; lack of time
Physical	-- Handicapped; age; health
Aesthetic	-- Poor quality of performance; prefer television
Motivation	-- Procrastination

An "other" category was used if the response did not fit into one of the

Table 8.1: Basic Responses to Barrier Questions

	Column 1 – JAZZ	Column 2 – CLASSICAL	Column 3 – OPERAS	Column 4 – MUSICALS	Column 5 – NON-MUS. PLAYS	Column 6 – BALLET	Column 7 – ART GALLERIES	NOTES
13b.	What are the reasons you did not attend JAZZ MUSIC PERFORMANCES more often? Any other reason? (Mark all that apply.)	What are the reasons you did not attend CLASSICAL MUSIC PERFORMANCES more often? Any other reason? (Mark all that apply.)	What are the reasons you did not attend OPERAS more often? Any other reason? (Mark all that apply.)	What are the reasons you did not attend MUSICAL PLAYS/ OPERETTAS more often? Any other reason? (Mark all that apply.)	What are the reasons you did not attend NON-MUSICAL PLAYS more often? Any other reason? (Mark all that apply.)	What are the reasons you did not attend BALLET PERFORMANCES more often? Any other reason? (Mark all that apply.)	What are the reasons you did not attend ART GALLERIES/ART MUSEUMS more often? Any other reason? (Mark all that apply.)	
	999	1010	424	1804	1344	651	1691	
1 ☐ Tickets sold out	.4%	.1	0	.5	.3	.1	0	
2 ☐ Cost	5.8	5.8	2.9	1.4	7.7	3.8	3.1	
3 ☐ Not available	4.1	3.8	1.9	6.7	4.9	3.1	7.1	
4 ☐ Feel uncomfortable	.3	.1	0	.2	.1	.1	.1	
5 ☐ Don't have anyone to go with	1.	[illegible]	.7	2.	.9	[illegible]	1.	
6 ☐ Babysitter problems/Must care for children	1.3	1.3	.4	2.5	2.0	.9	1.7	
7 ☐ Problem related to a handicap		2	.2	.4	.3	.3	.4	
8 ☐ Problem related to age/health	.5	1.2	.6	1.6	.9	.6	1.	
9 ☐ Too far to go	2.4	2.9	1.3	5.0	3.6	1.8	5.6	
10 ☐ Transportation/Traffic/Parking problems	1.4	1.7	.7	2.6	1.5	.9	2.4	
11 ☐ Crime or fear of crime	.3	.5	.3	1.0	.5	.3	.6	
12 ☐ Poor quality/Not very good, etc.	.5	.4	.1	1.0	1.0	.2	.4	
13 ☐ Prefer to watch TV	.3	.3	.1	.4	.3	.2	.3	
14 ☐ Don't have time	7.2	2.3	2.3	12.0				
15 ☐ Procrastination/Lack of motivation	1.7	2.0	.7	3.3	2.8	1.2	3.8	
16 ☐ Other – Specify	.7	1.0	.2	1.0	1.0	.4	1.0	

precoded categories. These survey questions are shown in Table 8.1.

Table 8.1 also includes the number of respondents who reported an interest in attending more arts performances. For the first set of queries in question 13a, the column of figures represent the number of respondents who desired to attend more art events. For example, of the 5,481 respondents, 999 said they would like to attend more jazz performances, and 1,691 said they would like to visit art galleries or museums more often. (The column does not sum to the total number of respondents because multiple answers were possible.) In total, 3,458 respondents indicated an interest in greater attendance at at least one art form, leaving 2,023 respondents not interested in increasing their frequency of attendance. Each respondent who indicated an interest in greater participation in an art form was asked why he/she did not attend more often.

Columns 1-7 of follow-up question 13b show the number of respondents who identified each reason for not attending as much as they would like. Thus, of the 999 respondents wanting to attend more jazz performances, 24 cited "tickets being sold out," 313 cited "cost," and 220 reported "unavailability" as a reason for non-attendance. (Again the total within each column is larger than the number of respondents since multiple answers were possible.)

Population Estimates of Interest in Increased Arts Participation

After weighting to correct for any disproportional representation in the sample by age, gender, or race, the responses to the questionnaire can be used to estimate the extent of increased interest among the U.S. adult population. These estimates, both in percentages and in numbers, are found

Table 8.2: Population Estimates of Desire to Attend Arts Events More Often: Percentages and Numbers in U.S. Adult Population

	Percent* Desiring More	Interest in Attending More (in millions)	Percentage Attending in Last 12 Months (from Chapter 3)
Jazz	18%	30 million adults	(10%)
Classical Music	18	30 million adults	(13%)
Operas	7	12 million adults	(3%)
Musical Plays, Operettas	33	54 million adults	(19%)
Non-musical Plays	25	40 million adults	(12%)
Ballet	12	19 million adults	(4%)
Art Museums	31	51 million adults	(22%)
None of these	37	51 million adults	(60%)

* Column does not total 100% due to the interest in increased attendance of multiple art forms.

in Table 8.2. In addition, for purposes of comparison, Table 8.2 includes the estimates of actual attendance at these arts performances.

It is apparent that a sizeable potential audience for the arts does exist. Roughly one-third of the respondents expressed an interest in attending musicals and art museums more often. While the potential audience with increased interests in the other arts is smaller -- only opera falls below 10% of the adult population -- even that percentage that translates into 12 million American adults.

A comparison of those wanting to attend more often with those who actually attend is informative. Whether indicated by actual attendance or by unfulfilled interests, the same types of art events are the most popular. Furthermore, a significantly larger group desire to attend more often than have actually attended in the previous 12 months. About twice as many people want to attend more ballets, plays, musicals and opera than recently attended. (The proportion who want greater attendance may include many people who have recently attended, as we shall see.)

2) REASONS FOR NOT ATTENDING AS OFTEN AS INTERESTED

The distribution of perceived barriers to increased attendance, as shown in Table 8.3, is quite similar for each art form. The factors cited as obstables most often are lack of time and cost. Other commonly perceived barriers include availability of tickets, distance and procrastination.

On the other hand, the perception of barriers for art museums is quite different. In this case, the most commonly cited problems are availability of art exhibits and distance. Although the relative ranking of these barriers is higher than for the other arts, the rates are very similar. For example, 23% cite availability as a major barrier to art museum visits; this compares to a range of 20-27% citing this as an obstacle to attendance at the other art forms. However, there is a significant difference in much lower reports of cost as a barrier to art museum attendance (10% compared to 31-39% for the other arts forms). Table 8.3a shows the same responses separately for those who attended that type of arts performance and those who did not attend. In general, the proportions are higher for the attending group (because more of them wanted to attend more) than for non-attenders, but the patterns of response are quite similar in that lack of time and cost factors tent to predominate.

Table 8.3: Perceived Barriers to Attending Art Performances Mentioned by Those Wanting to Attend Each Art Form More Often:

Percentages of those Reporting Each Type of Barrier

	Jazz	Classical Music	Operas	Musicals	Non-Mus. Plays	Ballet	Art Museums
N=	(9,925)	(9,945)	(4,060)	(17,860)	(13,455)	(6,414)	(16,840)
Tickets	2.4%	.4%	.7%	1.7%	1.0%	.9%	0.0%
Cost	31.3	31.4	37.3	33.6	31.3	32.0	10.0
Availability	22.0	20.5	24.1	20.5	20.1	26.4	23.1
Uncomfortable	1.5	.6	0.5	.6	.6	.9	.3
No escorts	6.4	7.7	9.0	8.1	8.2	11.2	6.0
Childcare	7.0	7.1	5.2	7.5	7.9	7.7	5.5
Handicap	9.0	1.2	2.6	1.4	1.5	2.6	1.1
Age/health	3.0	6.3	8.0	4.7	3.8	5.5	4.6
Too far	13.3	15.5	17.2	15.6	15.0	15.0	18.4
Transport	7.7	8.9	8.3	7.9	6.2	8.0	7.0
Crime	1.9	3.1	4.0	3.2	2.4	2.9	2.1
Poor quality	2.7	1.7	1.9	3.0	3.9	1.7	1.4
Prefer TV	1.9	1.4	1.2	1.3	1.3	1.5	.8
No time	39.1	39.4	29.0	36.8	39.3	31.8	15.6
Procrastination	9.7	10.7	9.2	9.2	11.6	10.4	12.4
Other	4.6	6.2	3.8	3.7	4.9	4.1	3.7

Note: The figures are calculated with weighted data from the SPA '82 Survey. The columns do not total 100% because a respondent could give more than one answer. "Other" includes such reasons as lack of knowledge about events; don't go out at night; work-related; performance times; moved or in transit; and prefer other activities; but excludes "don't know".

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Table 8.3a: Proportion of Attender and Non-Attender Citing Various Barriers to Greater Attendance

	Jazz		Classical		Opera	
	Attenders	Non-Attenders	Attenders	Non-Attenders	Attenders	Non-Attenders
Tickets Sold Out	2.8	.2	.3	.1	.5	0
Cost	20.9	4.3	17.7	4.2	18.0	2.6
Not Available	15.0	3.0	10.6	3.0	13.2	1.6
Feel Uncomfortable	.3	.3	.3	.1	0	0
No One to Go With	3.6	.9	4.2	.9	4.7	.6
Babysitter/Child Care Problem	3.0	1.1	3.2	1.1	1.6	.4
Handicap	0	.2	.1	.2	0	.2
Age/Health	.7	.5	1.2	1.2	2.6	.6
Too far to go	6.7	2.0	8.6	2.1	6.4	1.2
Transportation/traffic Parking Problems	5.2	1.0	4.4	1.3	3.9	.6
Crime	.3	.4	.8	.5	2.9	.2
Poor quality	2.5	.3	1.9	.1	1.6	.1
Prefer to watch TV	.7	.3	.6	.2	0	.1
Don't have time	23.3	5.5	21.9	5.3	10.6	2.1
Procrastination/ No motivation	4.0	1.5	5.2	1.5	3.4	.6
Other barriers	.2	.1	1.0	.1	1.5	0
Lack of knowledge of events	.6	.2	1.0	.2	0	0
Don't go out at night	0	.1	.4	.1	.7	.1
Work related	1.6	.2	.9	.2	0	.1
Poor performance time	0	0	.2	.1	.8	0

	MUSICAL PLAY		NON MUSICAL STAGE PLAY		BALLET		ART MUSEUM	
	Attenders	Non-Attenders	Attenders	Non-Attenders	Attenders	Non-Attenders	Attenders	Non-Attenders
Tickets Sold Out	1.6	.3	1.8	.1	1.0	.1	.0	.0
Cost	25.9	7.9	20.2	6.0	22.8	3.1	5.0	2.6
Not Available	15.0	4.9	13.3	3.8	15.6	2.6	13.5	5.3
Feel Uncomfortable	.1	.2	.3	.1	1.1	.1	.1	.1
No One to Go With	4.5	2.2	2.9	1.8	4.1	1.1	3.1	1.4
Babysitter/Child Care Problem	4.3	2.1	3.6	1.7	3.1	.8	2.5	1.4
Handicap	.3	.5	.5	.3	1.0	.3	.3	.3
Age/Health	1.2	1.6	1.6	.9	.5	.7	1.0	1.5
Too Far to Go	10.6	3.8	9.0	2.9	6.0	1.6	10.2	4.3
Transportation/Traffic Parking Problems	5.1	2.0	3.6	1.3	4.2	.8	3.6	1.7
Crime	2.0	.8	1.2	.5	.5	.3	1.3	.4
Poor quality	3.2	.5	3.2	.7	1.4	.2	1.3	.2
Prefer to Watch TV	.9	.3	.5	.3	.0	.2	.1	.3
Don't have time	25.7	9.0	2.6	7.6	15.7	3.4	30.1	9.5
Procrastination/ No motivation	6.7	2.6	6.0	2.3	1.6	1.1	7.5	2.7
Other barriers	.5	.0	1.2	.2	1.4	.1	.8	.1
Lack of Knowledge of events	.3	.3	1.1	.1	.0	.2	.4	.2
Don't go out at night	.3	.1	.0	.1	.4	.0	.1	.0
Work related	.6	.4	.9	.3	.6	.1	.4	.3
Poor performance time	.0	.0	.2	.0	.5	.0	.3	.1

3) DEMOGRAPHIC DIFFERENCES IN INCREASED INTEREST IN ARTS PARTICIPATION

The interest in attending more arts performances or exhibits differs among various demographic groups. Table 8.4 presents these differences by income, age, ethnicity-race, gender and education. Table 8.5 shows the same associations for each factor after adjustment for other background factors. The major differences revealed by analysis of demographic sub-groups are:

Jazz

Black, younger, more educated and, to a lesser extent, affluent individuals, and men, are generally more likely to express interest in attending more jazz performances. However, the highest income individuals (those in households earning $50,000 or more) are somewhat less interested than lower income groups in attending more live jazz performances.

Classical Music

The better educated are particularly likely to be interested in more classical music attendance. Those aged 25-54, females and the affluent also report greater desires to attend more often. When other factors are held constant, differences between income groups decrease, while older groups (over 35) are higher than average in their interest in attending more often.

Opera

Better educated persons and, to a lesser extent, older and higher income individuals, and females, are more likely to want to attend more operas. When other factors are held constant, the impact of age and education is even stronger.

Table 8.4: Demographic Correlates of Interest in Increased Arts Participation

	Jazz	Classical	Opera	Musicals	Plays	Ballet	Art Museums
TOTAL SAMPLE	18.4	18.6	7.8	32.8	24.7	11.9	31.0
Age:							
18-24	27.0	12.5	2.9	28.1	22.9	12.0	32.4
25-34	25.7	19.3	6.1	35.0	29.6	12.7	40.1
35-44	17.4	22.3	6.7	35.5	27.7	12.3	31.9
45-54	16.4	23.3	5.0	37.3	27.5	13.1	32.9
55-64	10.6	18.5	5.9	33.6	22.0	10.0	36.5
65-74	8.0	15.7	5.7	36.3	16.9	10.0	40.0
75-96	4.6	16.0	3.6	40.7	14.0	11.5	43.9
Education:							
Grade school	6.7	9.0	3.6	11.4	6.5	4.4	12.4
Attended high school	12.1	10.1	5.0	18.0	11.7	5.7	21.8
Graduated high school	17.7	14.5	6.5	30.2	20.8	9.8	28.8
Attended college	23.2	22.8	9.9	44.6	34.9	16.8	38.8
Graduated college	26.9	28.6	10.3	48.3	40.2	18.5	44.1
Attended graduate school	26.3	44.7	17.9	52.4	47.6	30.0	48.0
Income:							
Under $10,000	15.1	12.1	6.2	17.8	12.7	8.3	21.0
$10,000 - $14,999	14.9	15.2	7.2	23.2	15.0	9.6	25.8
$15,000 - $19,999	15.3	16.2	5.6	28.6	19.9	7.9	29.0
Not ascertained	12.8	18.7	7.2	30.9	21.3	11.6	25.4
$20,000 - $29,999	17.2	17.4	7.9	32.4	25.8	11.7	32.1
$30,000 - $49,999	23.7	24.6	9.3	44.8	34.1	16.7	37.9
$50,000 and over	21.4	24.3	11.3	47.8	43.7	16.4	39.8
SMSA:							
Central City	23.0	19.2	7.8	32.9	24.2	13.7	30.8
Other SMSA	19.6	21.0	9.8	38.5	28.1	13.5	31.0
Not SMSA	13.1	15.0	5.3	25.7	20.9	8.4	31.1
Attended Performance:							
Yes	14.4	13.9	6.9	25.0	19.9	10.4	23.5
No	56.2	53.2	44.5	68.0	61.0	53.4	57.4

Musical Plays or Operettas

The better educated, higher income persons, and females are particularly likely to want to attend musical plays or operettas more often. Much of the higher rate of demand among the high income group and the lower rate among the older age groups is attributable to the impact of other background factors -- most likely education which is associated positively with income and negatively with age.

Non-Musical Plays

The desire to attend plays more often tends to be greater among the more educated, the affluent, whites, those aged 25-64, and females. Much of the variation by income and age is a result of the influence of associated variables, again probably education.

Ballet

Those desiring to attend ballet more frequently are found disproportionately among the more educated, females, and the high income groups. When other factors are controlled older (rather than younger) individuals express greater interest in attending more frequently, while the highest income groups are less likely than average to express such an interest in ballet. Education is probably the explanatory factor for these changes after adjustment.

Art Galleries or Museums

The desire to visit art galleries or museums more frequently is most common among those with higher education, higher income and in the 25-34 age groups. Females are somewhat more likely than males to want greater

Table 8.5: MCA-Adjusted Correlates of Interest in Increased Participation

	Jazz	Classical	Opera	Musicals	Plays	Ballet	Art Museums
TOTAL SAMPLE	18.4	18.6	7.8	32.8	24.7	11.9	31.0
Age:							
18-24	22.2	12.9	2.7	27.8	22.3	11.4	31.4
25-34	24.4	17.9	5.2	31.6	26.7	10.9	26.8
35-44	18.9	20.8	8.7	32.9	25.0	10.8	29.1
45-54	16.7	23.3	10.9	36.9	27.2	13.6	30.7
55-64	12.8	19.4	10.6	35.4	19.0	11.8	28.3
65-74	11.9	17.4	10.3	34.9	21.9	13.1	26.5
75-96	8.5	21.3	13.5	35.1	21.9	14.7	25.9
Education:							
Grade school	14.0	11.3	1.7	17.7	13.9	6.4	22.6
Attended high school	15.9	12.3	4.7	22.5	15.8	7.0	27.5
Graduated high school	18.3	16.0	6.9	31.5	21.8	9.8	29.7
Attended college	13.5	21.9	10.3	41.8	32.5	16.2	34.9
Graduated college	22.7	24.9	10.5	42.1	34.5	16.8	36.9
Attended graduate school	21.4	37.0	17.1	44.1	37.9	31.8	38.2
Income:							
Under $10,000	16.5	16.4	8.1	26.7	19.8	10.0	26.5
$10,000 - $14,999	17.1	19.4	8.5	31.1	22.0	11.7	31.3
$15,000 - $19,999	16.1	19.2	7.1	32.6	22.9	9.1	30.9
Not ascertained	13.6	17.9	6.5	30.8	21.4	11.9	25.8
$20,000 - $29,999	19.9	18.3	7.2	32.3	25.7	11.5	32.0
$30,000 - $49,999	21.7	20.9	7.7	37.6	28.3	14.3	33.6
$50,000 and over	17.1	14.1	7.1	31.8	30.2	11.5	29.4
SMSA:							
Central City	20.8	19.2	7.8	34.2	27.7	14.1	30.6
Other SMSA	18.6	19.7	9.2	35.2	32.4	11.7	28.9
Not SMSA	20.7	16.6	5.9	28.3	23.5	9.8	33.9
Attended Performance:							
Yes	15.0	14.8	7.0	26.8	21.0	10.6	24.4
No	50.4	46.8	41.4	59.7	52.3	46.3	53.5

art museum attendance. On the other hand, blacks are notably less interested than whites in more visits. Most of the difference in unfulfilled wishes by income and age is attributed to the influence of other factors, again, most likely the variable of education.

4) DIMENSIONS OF INTEREST IN INCREASED ARTS PARTICIPATION

The results of a factor analysis, presented in Table 8.6, does not reveal separate dimensions or clusters of interests in greater attendance at art events. Rather, most of the arts events are interrelated in terms of interest in greater participation. The interest in increased attendance at live jazz performances correlates notably less well on this dimension than interest in the other six arts forms.

Table 8.6: Dimension of Interest in Increased Arts Participation (Results of Factor Matrix Using Principal Factor with Iterations.)

	Factor 1
Jazz	.281
Classical Music	.596
Opera	.500
Musicals	.528
Plays	.512
Ballet	.579
Art Museums	.453

5) BACKGROUND DIFFERENCES IN RANGE OF INTERESTS IN INCREASED ARTS PARTICIPATION

Respondents with certain background characteristics are more likely than others to be interested in a wider range of arts participation. This analysis is based on a count of the number of arts events (jazz, classical music, operas, musicals, plays, ballets and art displays) which respondents indicated they would like to attend more often. Scores on this index of increased interest thus range from 0 (interest in none) to 7 (interest in all seven). Table 8.7 shows these data for people with different background characteristics. Table 8.8 shows the same associations (between different categories of individuals and overall interest in greater attendance) for each background factor, after the influence of the other factors has been statistically removed.

From Table 8.7, it is evident that the better educated, the more affluent,and white collar workers are most interested in a wider range of arts attendance. Notable variations are also evident among groups differing in marital status, number of children, age and gender. In general, those groups who actually attend a wider range of arts events (see Table 8.4) are also more likely to express a desire to attend a range of events more often. In other words, recent participation in a wide range of art forms is associated with even greater demand.

When other background factors are controlled (Table 8.8), a considerable portion of the variation among sub-groups disappears. However, education and gender remain strong explanatory factors (probably accounting for some of the initial variation among other variables) and some differences persist within age, income, marital and ethnic groups.

Table 8.7: Index of Interest in Increased Arts Participation by Background Factors (Above or Below the Grand Mean of Index of Increased Arts Participation)

GRAND MEAN ON INTEREST INDEX*	1.4
Income:	
Under $10,000	-0.5
$10,000 - $14,999	-0.3
$15,000 - $19,999	-0.2
$20,000 - $29,999	0.0
$30,000 - $49,999	0.5
$50,000 and over	0.6
Not applicable	-0.2
SMSA:	
Central city of SMSA	0.1
SMSA, not central city	0.2
Not in SMSA	-0.3
Age:	
18 - 24 years	-0.1
25 - 34 years	0.2
35 - 44 years	0.1
45 - 54 years	0.1
55 - 64 years	-0.2
65 - 74 years	-0.3
75 - 96 years	-0.4
Marital:	
Married	0.0
Widowed	-0.4
Divorced	0.4
Separated	-0.2
Never married	0.2
Ethnic-Race:	
White, other origin	0.1
White, British Isles	0.1
White, W. Europe	0.0
White, E. Europe	0.5
Hispanic	-0.3
Black (exclude Hispanic)	-0.4
Other races	-0.4
White, unknown origin	-0.6
Sex:	
Male	-0.3
Female	0.2
Education:	
Grade School	-0.9
Attended High School	-0.6

High School Graduate	-0.2
Attended College	0.5
College Graduate	0.7
Attended Grad School	1.1
Work Hours:	
None	-0.1
1 - 29	0.3
30 - 39	0.2
40 hours	0.0
41 - 49	-0.1
50 or more	0.1
Work:	
Professional	0.8
Managerial	0.4
Sales, Clerical	0.4
Craftsman	-0.5
Operatives	-0.5
Laborers	-0.6
Service Workers	-0.1
Not Working	-0.1
Keeping House	-0.1
Student	-0.1
Retired	-0.5
# of Children:	
None	0.0
One, 6 - 11 years	0.0
Two+, 6 - 11 years	0.1
One, under 6	-0.1
One, 0 - 5/One, 6 - 11	0.2
One, 0 - 5/Two+, 6 - 11	0.2
Two+, 0 - 5	0.1
Two+, 0 - 5/One, 6 - 11	0.0
Two+, 0 - 5/Two+, 6 - 11	-0.1

*Index is based on a count

Table 8.8: Index of Interest in Increased Arts Participation -- Adjusted for Background Factors (Above or Below the Grand Mean of Index of Increased Interest)

GRAND MEAN ON INTEREST INDEX*	1.4
Income:	
Under $10,000	-0.3
$10,000 - $14,999	-0.1
$15,000 - $19,999	-0.1
$20,000 - $29,999	0.0
$30,000 - $49,999	0.2
$50,000 and over	0.1
Not applicable	-0.1
SMSA:	
Central city of SMSA	0.1
SMSA, not central city	0.1
Not in SMSA	-0.1
Age:	
18 - 24 years	-0.2
25 - 34 years	0.0
35 - 44 years	0.0
45 - 54 years	0.2
55 - 64 years	0.0
65 - 74 years	0.0
75 - 96 years	0.0
Marital:	
Married	-0.1
Widowed	-0.1
Divorced	0.3
Separated	-0.1
Never married	0.2
Ethnic-Race:	
White, other origin	0.0
White, British Isles	0.0
White, W. Europe	0.1
White, E. Europe	0.4
Hispanic	-0.1
Black (exclude Hispanic)	-0.1
Other races	-0.7
White, unknown origin	-0.4
Sex:	
Male	-0.3
Female	0.3
Education:	
Grade School	-0.7
Attended High School	-0.5

High School Graduate	-0.2
Attended College	0.4
College Graduate	0.6
Attended Grad School	1.0
Work Hours:	
None	0.0
1 - 39	0.1
30 - 39	0.1
40 hours	-0.1
41 - 49	-0.1
50 or more	0.0
Work:	
Professional	0.1
Managerial	0.2
Sales, Clerical	0.2
Craftsman	-0.1
Operatives	-0.1
Laborers	-0.1
Service Workers	-0.1
Not Working	0.1
Keeping House	-0.2
Student	-0.3
Retired	0.0
# of Children:	
None	0.0
One, 6 - 11 years	-0.1
Two+, 6 - 11 years	0.1
One, under 6	-0.1
One, 0 - 5/One, 6 - 11	0.2
One, 0 - 5/Two+, 6 - 11	0.1
Two+, 0 - 5	0.1
Two+, 0 - 5/One, 6 - 11	0.1
Two+, 0 - 5/Two+, 6 - 11	0.1

*Indice is based on a count ..

6) PARTICIPATION IN THE ARTS AND INTEREST IN INCREASED PARTICIPATION

The relationship between interests and attendance can be interpreted in either of two ways, depending on which variable is considered causal. Does increased interest lead to greater arts attendance, or does greater attendance further stimulate interest in participating? It is likely that there is a reciprocal effect so that both questions can be answered in the affirmative. Table 8.9 presents the correlations between the desire to attend more art events and actual attendance. (Correlations of 0.30-0.39 will be referred to as substantial; correlations of 0.20-0.29 as moderate; those under .20 as weak.)

The correlations are all positive, with the best predictor of actual attendance at a particular arts event being the expressed interest in attending that type of event more often. For example, while desire to attend ballet more often is associated (.231) with attending ballet performances, it is only weakly associated (at most .125) with attendance at other types of arts events. Similarly, interests in attending more jazz and musical theatre performances are substantially associated (.305 and .319 respectively) with actually attending these performances. Interests in attending classical music performances, plays, ballet or art museums/galleries are all moderately associated with a greater likelihood of actual attendance at each of these events, respectively.

Some interest and attendance patterns cross arts events. For example, interest in greater classical music attendance is moderately related to recent visits to art museums. Interest in more plays and musicals shows a similar association with attendance at art museums.

Thus, actual attendance at art events is associated with heightened

Table 8.9: Correlations of Interest in Increased Participation and Actual Participation (Pearson's r)

	Jazz	Classical Music	Opera	Musical	Play	Ballet	Art Mus.	Read
Interest in:								
More Jazz	.305	.086	.002	.074	.061	.033	.122	.127
More Classical	.078	.298	.096	.192	.162	.118	.237	.196
More Opera	.056	.150	.18[illegible]	.117	.100	.125	.127	.116
More Musicals	.063	.185	.068	.319	.203	.095	.216	.277
More Plays	.101	.177	.056	.207	.280	.090	.241	.267
More Ballet	.094	.177	.105	.163	.126	.231	.189	.183
More Art Museums	.068	.137	.034	.103	.087	.064	.270	.229

interest in attending that type of event (and in some cases, other types of art forms as well). However, it is possible that those wanting to participate would attend more often, were it not for the perceived barriers to attendance described in Section 2.

Table 8.9 also shows positive correlations across the art forms. That is, wanting to attend one type of arts event is positively associated with actual attendance at other types of arts events in all cases. We also can determine, then, how much more individuals with varying interests in attending a greater range of art events may actually participate. In other words, how well does the number of art forms a respondent is interested in attending predict attendance in the arts?

Tables 8.10 and 8.11 present the data relevant to this relationship. Table 8.10 shows the proportions of attenders of each art form across the index of interest in increased participation (in terms of deviation from the grand mean). Table 8.11 shows the same relationships after holding constant 11 background variables: income, age, SMSA, region, race/ethnicity, gender, occupation, number of children, marital status, education and number of work hours per week. The Table 8.11 data indicate whether any of the background variables explain the (unadjusted) associations found in Table 8.10.

Table 8.10 shows that there is an association between interest in increased participation and actual attendance at arts events. Generally, the higher on the scale of unfulfilled wishes, the greater the actual attendance (or reading). This also holds true for the general index of arts participation shown in the last column of Tables 8.10 and 8.11. However, these associations are not perfectly linear, since in most cases those highest in interest (index score=7) do not show the most frequent atten-

Table 8.10: Attendance Rates for the Arts by Index of the Number of Art Forms Respondents Want to Attend More Often

	Jazz	Classical Music	Opera	Musicals	Plays	Ballet	Art Museum	Read	Index
GRAND MEAN =	9.6%	11.8%	2.2%	18.2%	11.6%	3.6%	22.2%	0.79	0.83
Unfulfilled Wishes Scale:									
0	-5.7	-9.0	-1.6	-13.7	-8.8	-2.7	-16.7	-22.7	-0.58
1	-0.3	-3.4	-0.6	-2.3	-2.5	-1.7	-1.5	1.3	-0.12
2	-0.2	0.4	0.2	6.9	3.8	0.4	4.8	14.4	0.16
3	6.1	12.4	0.5	17.4	10.0	3.4	20.1	24.1	0.70
4	13.4	23.2	4.0	22.5	17.3	5.7	29.5	27.6	1.15
5	10.6	25.6	7.6	29.0	22.4	15.8	39.1	28.7	1.50
6	9.3	31.8	8.4	27.1	21.3	15.1	37.1	31.0	1.50
7	26.7	22.8	4.0	18.9	20.2	2.2	22.2	22.9	1.17

dance -- at either particular art forms or in general. When background factors are held constant, the relationships tend to be weaker but the overall non-linear pattern persists. Increased interest predicts more attendance, then, only up to a point; beyond that point, the more interest, the lower the participation. Those may be people who are really most constrained in their ability to attend arts events.

We can conclude that background variables such as age, education and income explain some of the observed association between desires to attend and actual attendance, but not most of it.

Table 8.11: Attendance Rates for the Arts by Index the Number of Art Forms Respondents Want to Attend More Often Adjusted for the Influence of Other Factors*

	Jazz	Classical Music	Opera	Musicals	Plays	Ballet	Art Museum	Read	Index
GRAND MEAN =	9.6%	11.8%	2.2%	18.2%	11.6%	3.6%	22.2%	56.4%	0.83%
Unfulfilled Wishes Scale:									
0	-4.0	-6.2	-1.2	-9.8	-5.8	-1.5	-12.1	-14.9	-0.41
1	-0.6	-2.4	-0.3	-1.2	-1.5	-1.4	-0.6	1.4	-0.08
2	-1.1	-1.0	-0.0	4.7	2.3	-0.3	2.0	8.9	0.06
3	4.4	9.1	-0.0	12.9	6.5	2.0	15.1	16.8	0.50
4	11.4	18.1	3.1	15.5	12.0	3.6	22.4	18.0	0.86
5	8.3	18.8	6.5	20.8	15.3	13.5	30.0	17.1	1.13
6	9.4	23.5	6.8	16.7	13.8	12.0	26.7	16.9	1.08
7	24.0	16.5	3.0	9.8	12.7	0.4	13.3	12.9	0.79

* The factors held constant are: income, age, SMSA, region, race/ethnicity, gender, occupation, number of children, marital status, - education and number of work hours per week.

SUMMARY

In this chapter, we have analyzed the association between interest in attending arts events more frequently and perceived obstacles to such attendance. Several conclusions have emerged.

First, a sizable potential audience does exist: roughly twice the size of the present audience for each art forms. Second, lack of time and cost are the reasons cited most often as obstacles to attendance at art performances; for visiting art museums and galleries, the major barriers appear to be availability and distance.

In terms of background characteristics, the better educated and more affluent express greater interest in increased arts participation. There are also differences among age, ethnic and gender sub-groups for some of the art forms. Factor analysis identifies a single cluster of art forms (classical music, ballet, musicals, play opera and museum attendance) in terms of interest in attending more often.

Typically, interest in greater attendance at one art form is related to actual attendance of that art form; however, there is some association between interest in one form and attendance at a different art form. Finally, the broader the range of increased interests, the greater the likelihood of attending any or all of the art forms. However, people who express a greater range of interests in increased participation across art forms seem to attend less than those more in the middle of the interest index.

Chapter 9

MUSIC PREFERENCES AND ARTS ATTENDANCE

Preferences for certain types of music are a reflection of a general cultural orientation, so we should expect relationships between arts participation and musical preferences. One indicator of musical preferences are the "core" questions in the survey on attendance of live musical performance. However, these questions are incomplete indicators of musical preferences for two reasons: first, they do not cover all types of music (they relate only to jazz, classical, opera and musicals); second, they concentrate on live performances. To cover musical preferences comprehensively, a series of direct questions asked respondents what types of music they liked to listen to (Table 9.1).

This chapter presents the musical preference questions and the distribution of responses to them. Further analysis of this information addresses the following questions:

1) What are the most liked types of music? Estimates of the size of the audience who at least likes each type of music can be estimated from the distribution of responses in the sample.

2) How do musical tastes differ among groups with different backgrounds? For example, are males more likely than females to prefer country and western music? Are the best social correlates of musical tastes also the best explanatory factors?

3) Along what dimension do musical preferences tend to cluster? For example, do people enjoy listening to jazz, or rock music, also tend to enjoy certain other types of music?

4) Do people of certain social backgrounds like a broader range of music? For example, are persons

of certain backgrounds more likely to prefer "serious" music such as classical, opera, etc.?

5) Are music preferences useful predictors of attendance at arts performances?

6) Do people who enjoy more types of music, or more varieties of a single dimension or type of music, also tend to participate in the arts?

1) MUSIC PREFERENCE QUESTIONS AND RESPONSES

The music preference questions differentiated among the 13 types of music listed in Table 9.1. After the respondents were asked if they enjoyed listening to each of these types of music, they were asked to specify additional types of music to which they liked to listen. Those respondents who indicated more than one additional musical preference were asked their most preferred music. (This question provides an indicator of the most enthusiastic listeners for each type of music.)

These survey questions and the responses of the 5,617 respondents who answered them are found in Table 9.1. The first column of figures shows the number of respondents who liked to listen to the respective types of music (respondents could give multiple responses.); for instance, 3,277 said they enjoyed listening to country-western music. The second column of figures gives the numbers of respondents who liked the respective types of music best. Classical or chamber music, for example, was the favorite listening music for 377 respondents.

Table 9.1

22a. *Read –*

► *FOR PERSONAL INTERVIEW*

Please look at the types of music listed on this card. *(Hand respondent flashcard LAS-12.)* **Which of these types of music do you like to listen to? Any other type?** *(Mark all that apply.)*

► *FOR TELEPHONE INTERVIEW*

I'm going to read you a list of some types of music. As I read the list, tell me which of these types of music you like to listen to? *(Read categories from flashcard LAS-12.)* **Any other type?** *(Mark all that apply.)* (n=5617) (NA=136)

1 ☐ Classical/Chamber music	1554	377
2 ☐ Opera	548	34
3 ☐ Operetta/Broadway musicals/Show tunes	1501	134
4 ☐ Jazz	1461	184
5 ☐ Soul/Blues/Rhythm and blues	1483	226
6 ☐ Big band	1828	321
7 ☐ Country-western	3277	1290
8 ☐ Bluegrass	1375	46
9 ☐ Rock	1967	814
10 ☐ Mood/Easy listening	2702	758
11 ☐ Folk	1400	72
12 ☐ Barbershop	825	14
13 ☐ Hymns/Gospel	2028	595
14 ☐ Other – *Specify* ______	91	38
15 ☐ All	102	75
16 ☐ None/Don't like to listen to music		

CHECK ITEM C

Is more than one type of music or "ALL" marked in 22a?

0 ☐ No – *Skip to 23a*
1 ☐ Yes

22b. You mentioned you like to listen to *(Read categories marked in 22a).* **Which of these do you like best?**
(Enter category number.)

______ Category number

0 ☐ No one type best 414

Population Estimates of Music Preferences

After weighting the gender, race, and age categories to correct any disproportional representations in the sample, the responses to the musical preference questions can be generalized as population estimates. These estimates, calculated as both percentages and numbers, are shown respectively in Table 9.2a and Table 9.2b. These estimates reflect, then, the portion and number of U.S. adults who enjoy, or enjoy best, each of the thirteen types of music.

Table 9.2a: Population Estimate of Music Preferences and Types of Music Liked and Liked Best: Percentages of U.S. Adult Population.

	Liked	Liked Best
Classical or Chamber	28%	7%
Opera	10	0.6
Broadway Musicals or Show Tunes	23	2
Jazz	26	3
Soul, Rhythm or Blues	27	5
Big Band	32	6
Country-western	58	23
Bluegrass	25	1
Rock	35	15
Mood, Easy Listening	48	14
Folk	25	1
Barbershop	14	0.3
Hymns, Gospel	36	11
Others	2	0.6
(Liked all types mentioned)	(2)	(NA)
(More than one type)	(78)	(NA)
(No one type liked best)	NA	9
		100%

NA = Not Applicable

Table 9.2b: Population Estimate of Music Preferences and Types of Music Liked Best (in millions) of American Adults

	Liked	Liked Best
Classical or Chamber	45	11
Opera	16	1
Broadway Musicals or Show Tunes	38	4
Jazz	43	5
Soul, Rhythm or Blues	44	7
Big Band	53	9
Country-western	96	38
Bluegrass	40	1
Rock	58	24
Mood, Easy Listening	79	22
Folk	41	2
Barbershop	24	1
Hymns, Gospel	59	18
Others	3	1
Liked all types mentioned	3	(NA)
More than one type	129	(NA)
No one type liked best	NA	12

NA = Not Applicable

As can be ascertained from the tables, almost all American adults enjoy listening to at least one of these types of music. Most adults, in fact, enjoy at least two types. Country-western and mood music are by far the most popular choices, while about a third or more like to listen to rock, hymns and gospel music, and big band. Barbershop and opera are the least popular.

The rankings for best liked music are very similar. Country-western, rock, mood, and hymns and gospel music are also the most frequent favorites. On the other hand, despite sizable portions of the adult population who do enjoy them, bluegrass and folk are the favorites of relatively few adults.

2) BACKGROUND DIFFERENCES IN MUSIC PREFERENCES

People belonging to different demographic sub-groups are more or less likely to prefer a particular type of music. Table 9.3 presents income, age, ethnicity-race, gender, and education categories as correlates of music preference. Table 9.4 shows the same data for each variable after controlling for the effects of other variables. The major differences among sub-categories of these background variables are as follows:

Classical or Chamber Music

Listening to classical or chamber music is enjoyed particularly by the more educated, the more affluent, "other" races, whites, and the middle-aged. In addition, females are somewhat more likely than males to enjoy this type of music. When other factors are controlled, Hispanics are more likely than the average to like classical or chamber music, and older persons are also more likely to enjoy classical music. Other factors also account for much of the variation by income, most likely education.

Opera

Enjoyment of opera is especially common among those with highest incomes, higher education, and the older age groups. This music preference is also slightly greater among females.

Operettas, Broadway Musicals, or Show Tunes

Those with higher incomes, more education, middle aged, and female are more likely to enjoy listening to operettas, broadway musicals, or show tunes. When the impact of other factors is statistically controlled, much of the variation by income is reduced (probably due to controlling on education), and older individuals in general are more likely to enjoy these

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Table 9.3: Music Preferences By Ten Background Variables: Percentages Of Respondents Above And Below Average Rate Of Preference For 13 Selected Types Of Music

	Classical	Opera	Broadway Musicals	Jazz	Soul Rhythm Blues	Big Band	Country Western	Blue Grass	Rock	Easy Listening	Folk	Barber-Shop	Hymn Gospel
GRAND MEAN :	27.5%	9.6%	23.0%	26.1%	26.7%	32.4%	58.0%	24.4%	35.6%	48.0%	24.9%	14.4%	36.2%
INCOME													
Under $10,000	-10.5	-2.6	-10.9	-4.9	2.5	-9.9	-7.4	-3.7	-1.3	-13.7	-4.2	-4.1	11.8
$10,000 - 14,999	-4.6	-1.4	-7.9	-4.0	-4.2	-3.2	-3.1	-3.4	-11.4	-14.6	-4.4	0.4	10.6
$15,000 - 19,999	-4.8	-1.2	-2.9	-3.6	-2.0	-5.4	1.7	-0.5	2.2	-5.4	-2.9	0.8	3.1
$20,000 - 29,999	-0.8	-0.6	-1.5	-0.2	-2.6	-0.7	1.5	0.4	2.5	0.9	-2.0	-1.5	-3.8
$30,000 - 49,999	5.3	0.7	8.1	3.1	2.5	5.7	2.8	2.9	5.1	13.3	7.4	0.8	-7.9
$50,000 and above	27.2	14.1	23.8	19.2	12.9	15.9	0.5	7.3	-0.6	14.7	13.7	6.0	-5.2
NA-REF	2.3	0.2	0.6	0.8	2.3	4.8	-2.7	-2.4	-5.9	1.7	0.2	1.7	-0.0
SMSA													
Cent city of smsa	2.8	2.5	0.3	6.8	6.3	1.1	-9.3	-5.3	0.5	-2.2	-1.2	-1.4	-2.4
Smsa, not cent city	2.5	0.7	3.8	0.5	0.0	2.7	-2.1	-1.3	2.5	5.5	1.4	0.1	-6.7
Not in smsa	-5.1	-2.8	-4.7	-5.9	-5.0	-4.0	9.8	5.6	-3.3	-4.7	-0.7	1.0	9.7
AGE													
18 - 24 yrs.	-10.7	-4.5	-9.4	5.6	5.8	-16.3	-6.8	-4.0	39.6	-6.0	-10.6	-9.0	-15.1
25 - 34 yrs.	0.4	-4.5	-4.4	6.8	10.0	-11.2	-1.8	3.7	20.6	1.1	1.4	-7.1	-8.3
35 - 44 yrs.	4.2	0.0	5.9	-2.7	-0.9	-1.7	8.2	3.9	-2.4	5.3	4.1	-2.6	1.5
45 - 54 yrs.	4.8	5.4	8.3	1.1	-1.2	12.9	5.4	0.5	-22.5	7.8	5.9	6.1	5.0
55 - 64 yrs.	6.7	5.0	5.5	-3.3	-6.7	19.9	0.1	1.2	-27.3	4.2	1.7	9.1	9.8
65 - 74 yrs.	[illegible]	4.8	1.2	-4.8	-10.9	18.11	1.2	-3.2	-30.1	-3.9	0.9	12.6	14.1
75 - 94 yrs.	-4.8	6.3	-4.9	-18.6	-20.7	-5.7	-11.2	-13.8	-33.6	-24.5	-5.3	8.6	18.8
MARITAL													
Married	0.5	[illegible]	0.8	-2.8	-3.4	2.3	4.3	1.5	-4.3	1.6	1.7	1.4	0.5
Widowed	1.1	3.9	-0.4	-10.9	-12.2	5.6	-2.5	-7.4	-28.8	-7.2	-2.0	5.3	20.3
Divorced	8.8	3.8	7.0	7.9	8.7	4.8	3.3	3.8	3.9	11.2	6.5	0.5	6.0
Separated	-12.4	-3.9	-14.3	3.3	13.7	-11.1	-11.2	-6.6	-0.7	-10.5	-11.1	-5.8	6.3
Never Married	-3.2	-2.3	-2.8	10.2	10.9	-4.7	-12.5	-2.4	29.7	-4.9	-5.5	-5.9	-12.0
ETHRAC													
White other origin	0.2	0.3	1.5	-2.2	-3.4	0.9	6.3	4.4	3.3	2.9	2.0	1.5	-1.5
White British Isles	5.1	0.5	6.8	-0.2	-4.8	4.9	4.8	3.6	-4.2	4.0	6.4	7.2	3.8
White W. Europe	2.9	0.1	0.5	-2.7	-5.4	4.5	2.5	1.9	1.2	5.3	2.9	0.9	-6.1
White E. Europe	10.4	11.7	12.6	5.1	-2.9	15.0	-7.8	-4.2	-4.9	14.8	6.0	-2.0	-17.2
Hispanic	-1.8	-4.0	-4.2	1.1	1.8	-4.4	-9.6	-14.7	1.2	-4.2	-7.4	-9.2	-20.0
Black (Hispanic)	-12.5	-3.8	-11.5	15.8	32.9	-14.8	-34.3	-19.6	-4.4	-23.9	-16.6	-10.1	26.4
Other races	15.5	2.5	-8.7	2.7	-5.6	-15.5	-11.5	-9.5	0.1	-0.9	-4.4	-7.8	-20.0
White unkn origins	-13.6	-1.0	10.2	-19.7	-17.2	-9.2	20.6	6.3	-11.0	-11.2	-8.8	1.4	16.5
SEX													
Male	-2.4	-1.5	-4.9	2.7	0.3	-0.1	-0.2	2.3	3.2	-4.0	-0.3	-1.2	-6.8
Female	2.1	1.3	4.3	-2.3	-0.3	0.1	0.1	-2.0	-2.8	3.5	0.3	1.0	6.0
EDUC													
Grade School	-17.1	-4.6	-17.0	-16.5	-16.4	-12.4	-2.6	-6.7	-26.2	-30.0	-12.1	-2.7	12.1
Attended HS	-12.9	-2.9	-12.7	-9.9	-5.7	-4.6	8.0	-2.5	-13.2	-15.0	-7.1	-1.0	7.4
HS Grad	-6.2	-2.3	-3.1	-3.5	-1.3	-1.7	4.0	-1.3	3.2	1.3	-3.8	-1.3	-1.8
Attended College	6.8	0.0	6.7	8.5	9.2	2.3	-3.5	1.9	11.0	11.7	4.6	2.0	-2.9
College Grad	19.8	6.9	16.8	14.3	7.7	10.3	-9.5	6.2	10.7	14.5	10.9	2.6	-7.2
Attended Grad School	33.4	13.9	22.2	17.6	6.3	14.5	-8.5	7.5	1.6	12.9	21.7	3.7	-3.9
WORKHRS													
None	-1.9	1.1	-2.1	-6.3	-3.8	-0.1	-1.2	3.5	-9.4	-5.1	-2.6	2.6	5.3
1 to 29	0.3	-0.2	2.9	5.3	3.1	-0.3	-1.9	0.5	5.6	1.7	0.4	-1.2	1.8
30 to 39	[illegible]	-2.4	1.2	-2.6	-2.0	-0.5	2.2	-3.4	4.1	4.0	-0.4	-0.2	-5.7
40 hrs	[illegible]	-0.2	0.6	4.1	2.3	-0.1	-1.3	1.2	6.4	2.1	0.3	-2.7	-6.6
41 to 49 hrs	6.0	-2.0	1.6	3.1	3.7	-1.5	7.0	11.6	9.5	11.3	5.6	-1.9	-5.4
50 or more	4.2	-1.1	1.9	9.3	5.9	2.0	4.6	7.2	8.2	0.7	6.5	-1.5	-8.3
WORK													
Professional	22.5	7.5	15.7	16.0	11.5	11.8	-5.1	9.7	8.2	16.5	16.1	2.7	-3.1
Managerial	7.4	2.4	10.1	10.0	4.7	12.8	0.5	3.5	1.9	15.2	7.9	1.0	-4.1
Sales, Clerical	1.3	-2.2	7.0	5.3	4.0	2.1	1.3	-2.0	10.5	11.1	0.4	-0.6	-5.9
Craftsman	-6.4	-3.4	-11.3	-5.5	-4.8	-7.8	9.1	6.6	4.7	-8.1	-1.1	-4.4	-11.0
Operatives	-10.1	-5.4	-12.6	-0.5	-2.5	-10.6	5.8	4.5	4.3	-11.5	-5.2	-5.0	2.0
Laborers	-13.9	-5.1	-11.9	-6.1	-1.5	-9.1	-0.9	-2.3	1.4	-15.6	-10.2	-4.4	3.4
Service Workers	-5.5	-1.9	-4.1	1.5	4.7	-6.1	-0.5	-2.0	7.9	-2.1	-2.4	-4.0	-1.9
Not Working	-4.0	-2.1	-6.3	-2.0	2.6	-8.2	-4.8	-2.9	4.9	-10.9	-4.9	-1.3	-0.5
Keeping House	-0.5	1.7	-0.9	-10.2	-7.3	-0.3	-0.1	-4.3	-16.1	-3.1	-3.3	2.9	11.6
Student	-4.6	-1.5	-5.1	10.8	7.9	-11.2	-10.7	-4.0	35.9	1.6	-8.7	-2.9	-18.3
Retired	-4.3	4.3	1.0	-10.9	-14.2	13.5	-0.5	-5.9	-31.2	-4.1	-1.6	8.9	4.1
#CHILDREN													
No Children	0.8	1.6	1.5	1.1	-0.5	3.5	-1.8	-0.9	-3.4	-0.2	-0.0	2.0	1.0
One 6-11 yrs	1.8	-3.3	-0.8	-4.7	0.0	-3.8	7.9	2.0	3.3	2.4	-0.2	-1.7	2.6
Two or+ 6-11 yrs	-1.0	-2.5	6.2	-3.2	1.1	-4.4	5.1	5.0	0.7	5.3	3.4	-2.3	2.4
One under 6	-5.2	-2.5	-7.9	2.7	7.0	-12.5	-1.9	1.1	18.1	-0.7	-1.6	-6.4	-8.4
One 0-5, One 6-11	-6.7	-7.7	-3.3	-4.6	1.6	-9.2	8.6	-0.1	8.0	-1.5	-2.1	-7.3	-5.4
One 0-5, Two or+ 6-11	-1.0	-4.8	-6.7	-0.9	-3.6	-9.7	1.8	-0.6	4.7	-4.7	-2.7	-7.6	1.3
Two or+ 0-5	-1.1	-5.8	-9.1	-5.1	-3.3	-13.6	6.0	5.3	12.6	-0.4	0.4	-8.6	-4.3
Two or+ 0-5, One 6-11	-5.8	-0.3	-5.0	-4.2	-3.6	-13.0	6.0	2.3	1.5	0.8	1.3	-4.4	-9.9
Two or+ 0-5, 2 or+ 6-11	5.8	-8.2	-5.0	-3.3	4.2	-2.2	7.3	1.4	2.5	-2.0	10.8	-1.1	7.1

types of music.

Jazz

Preference for listening to jazz is found particularly among higher income, higher education, young and black respondents. Much of the variation by age is attributable to the influence of other variables, such as education.

Soul Music, Blues, or Rhythm and Blues

Enjoyment of soul music, blues, or rhythm and blues is notably higher among blacks. It is also found, to a lesser degree among the highest and lowest income brackets, the young, and the better educated.

Big Band Music

Older (but not the oldest) age groups, higher income groups, and better educated persons are more likely to express a preference for big band music. When the effects of other factors are held constant, older individuals are actually more likely than the average to enjoy listening to big band music, and the variations by income are considerably reduced; education is probably the major explanatory variable.

Country-Western Music

Persons with middle incomes, of middle age, of less (but not least) education, and whites are more likely to enjoy country-western music. When adjusted for other factors, the relationship between education and liking country-western music is consistently negative.

Bluegrass Music

Liking bluegrass is more prevalent among those with higher incomes,

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Table 9.4: Music Preferences By Ten Background Variables, Adjusted For Background Factors: Percentage Of Respondents Above And Below The Average Rate Of Preference

	Classical	Opera	Broadway Musicals	Jazz	Soul Rhythm Blues	Big Band	Country Western	Blue Grass	Rock	Easy Listening	Folk	Barber-Shop	Hymn Gospel
GRAND MEAN :	27.5%	9.6%	23.0%	26.1%	26.7%	32.4%	58.0%	24.4%	35.6%	45.0%	24.9%	14.4%	36.2%
INCOME													
Under $10,000	-3.2	-1.7	-4.4	-3.6	0.0	-2.6	0.0	3.4	1.5	-1.5	-0.7	-2.5	4.6
$10,000 - 14,999	1.1	-0.9	-3.7	-0.3	-2.3	-1.2	-0.7	1.3	-4.1	-6.7	0.3	-0.3	5.1
$15,000 - 19,999	-0.6	0.6	1.0	-1.3	-0.5	-1.9	-0.5	-0.1	-0.6	-2.4	-0.3	2.7	5.0
$20,000 - 29,999	-0.8	0.1	-1.5	-0.2	-2.7	-0.8	-0.5	-1.3	0.5	-0.8	-2.8	-1.1	-2.2
$30,000 - 49,999	-0.4	-0.4	3.6	-0.1	1.4	2.5	1.6	-0.7	1.6	6.4	2.8	0.3	-4.4
$50,000 and over	13.3	8.0	11.3	13.6	12.2	5.0	1.8	2.7	2.4	3.9	4.3	1.6	-4.5
NA-REF	0.1	-1.5	-2.2	0.7	2.7	1.6	-1.9	-1.5	-1.1	-0.5	-0.7	0.0	-1.7
SMSA													
Cent city of smsa	3.1	2.5	1.2	4.5	2.5	2.3	-4.6	-2.2	1.5	0.2	0.5	-0.1	-4.1
Smsa, not cent city	0.2	0.1	1.7	-1.0	-0.4	1.3	-2.6	-2.2	-0.1	2.1	-0.3	-0.3	-3.7
Not in smsa	-2.7	-2.1	-3.0	-2.4	-1.5	-3.3	6.6	4.8	-1.0	-2.6	-0.0	0.5	7.6
AGE													
18 - 24 yrs.	-10.8	-7.9	-11.4	2.6	1.1	-18.0	-2.5	-4.0	35.7	-7.5	-11.0	-11.4	-13.0
25 - 34 yrs.	-3.9	-4.6	-4.1	5.3	8.5	-15.0	0.1	3.1	21.3	-3.2	-2.0	-4.2	-4.3
35 - 44 yrs.	0.5	-1.1	3.0	-4.5	-2.2	-5.0	7.3	2.9	-3.1	1.0	1.3	-4.2	1.0
45 - 54 yrs.	4.9	6.0	9.6	-0.0	-1.8	13.6	4.3	1.1	-22.8	8.5	6.6	6.8	5.6
55 - 64 yrs.	9.6	6.5	8.5	-1.6	-3.9	22.5	-2.8	1.3	-26.8	7.2	3.7	10.7	10.2
65 - 74 yrs.	5.8	0.2	7.3	-2.6	-4.6	25.0	-2.4	-1.7	-26.4	4.4	6.3	17.3	14.0
75 - 96 yrs.	4.9	11.7	5.1	-4.1	-11.6	6.3	-15.1	-12.7	-28.9	-10.9	3.0	[illegible]	16.5
MARITAL													
Married	-0.9	-0.7	-1.1	-1.8	-1.9	-0.5	1.5	-0.2	-2.3	-0.7	-0.3	0.2	0.7
Widowed	2.3	-1.8	-1.8	-0.2	-2.6	-2.2	2.0	-1.2	0.8	1.8	-0.9	-5.0	1.5
Divorced	5.7	2.9	3.5	7.3	7.9	2.9	1.7	2.0	6.6	7.9	4.3	-0.1	3.2
Separated	-4.6	-3.9	-6.5	1.1	3.4	-0.4	-2.4	0.4	2.6	1.4	-3.3	1.0	-4.0
Never Married	0.9	-2.3	3.8	2.8	4.1	1.7	-6.0	0.3	4.5	-1.2	-0.1	1.2	-3.4
ETHRAC													
White other origin	-0.3	0.5	0.8	-2.6	3.9	0.8	5.8	4.1	2.1	1.8	1.8	1.4	-1.8
White British Isles	1.6	-2.0	3.5	-0.4	-3.7	3.3	5.8	4.0	-1.9	2.2	4.1	4.3	1.2
White W. Europe	2.9	-0.2	-0.0	-2.4	-5.1	3.1	2.6	2.3	2.9	4.3	2.9	0.5	-5.5
White E. Europe	5.0	8.3	7.3	3.5	-2.9	7.6	-5.2	-3.2	2.2	10.9	3.0	-5.2	-18.1
Hispanic	4.4	-1.4	[illegible]	2.3	3.0	-1.8	-9.2	-13.3	-3.6	-1.7	-3.3	-4.9	-14.9
Black (Hispanic)	-8.0	-2.1	[illegible]	17.2	33.3	-9.3	-33.6	-19.5	-9.5	-17.7	-13.5	-7.3	27.9
Other races	8.8	0.9	-14.[illegible]	-0.8	-8.6	-16.3	-8.9	-10.8	-4.2	-6.2	-9.3	-7.0	-14.8
White unkn origins	-6.5	2.0	-2.7	-13.8	-14.1	-3.5	15.4	5.5	-6.5	-3.3	-6.2	1.6	10.3
SEX													
Male	-4.0	-2.2	-7.0	1.3	-0.5	-0.9	-0.3	0.8	1.8	-4.8	-2.4	-1.2	-6.1
Female	3.5	2.0	6.1	-1.1	0.4	0.8	0.3	-0.7	-1.5	4.2	2.1	1.1	5.3
EDUC													
Grade School	-19.5	-9.5	-17.7	-12.1	-12.4	-19.4	4.1	-1.6	-2.5	-23.7	-11.8	-9.5	-2.0
Attended HS	-13.5	-4.5	-12.0	-7.0	-3.2	-4.1	9.2	-1.7	-4.1	-11.9	-6.4	-3.3	-0.6
HS Grad	-5.4	-1.6	-2.7	-2.5	-0.2	-0.1	3.0	-1.3	1.3	1.7	-3.0	-0.5	-0.7
Attended College	9.2	2.1	8.0	6.6	7.2	6.3	-4.0	1.5	0.1	11.2	5.8	5.0	3.1
College Grad	18.7	7.7	15.0	10.2	4.1	9.6	-11.3	3.8	3.6	9.1	8.6	4.2	-0.8
Attended Grad School	29.3	13.5	19.1	11.7	0.8	10.1	-10.6	2.9	-1.0	5.3	16.5	3.8	0.6
WORKHRS													
None	0.4	0.9	-2.2	0.6	5.8	0.8	4.4	2.8	2.3	-0.7	2.3	1.7	1.0
1 to 29	-0.7	-0.0	2.4	0.9	-4.2	-0.1	-4.2	-2.4	-3.7	-0.7	-1.9	-1.0	1.0
30 to 39	-2.0	-2.0	0.4	-6.3	-8.1	-0.6	-2.8	-7.4	-4.6	0.2	-3.7	0.2	-4.1
40 hrs	-1.3	-0.0	0.6	-1.0	-5.1	-0.8	-4.9	-2.6	-0.8	1.1	-3.0	-2.0	-3.4
41 to 49 hrs	4.4	-1.6	2.9	-0.9	-1.2	-1.0	0.8	5.4	-0.5	8.2	1.4	-0.8	0.4
50 or more	1.7	-1.1	3.0	3.9	0.4	-0.3	0.0	0.7	0.2	2.0	1.9	-0.8	5.6
WORK													
Professional	5.0	1.7	1.4	6.6	10.6	6.3	2.2	6.9	3.9	6.3	7.0	2.8	4.4
Managerial	-1.1	0.7	2.3	5.0	6.1	7.5	0.3	-0.1	1.5	6.5	2.2	0.6	2.0
Sales, Clerical	-1.4	-2.1	0.7	3.1	4.2	2.5	4.1	0.7	3.9	3.1	0.4	1.2	-1.6
Craftsman	0.6	1.7	-4.9	-3.4	0.8	-3.4	5.1	4.9	1.1	-7.4	2.6	-0.4	-0.7
Operatives	0.2	0.4	-4.6	1.8	0.3	-2.5	6.4	7.9	2.0	-5.4	3.0	1.3	6.6
Laborers	-3.7	6.8	-2.3	-4.2	2.8	-2.0	-1.3	-2.1	0.5	-6.4	-3.0	0.1	4.8
Service Workers	-0.8	1.0	-2.7	0.8	3.9	-0.6	4.7	2.6	4.1	-0.2	3.2	0.4	-1.8
Not Working	3.2	0.4	3.1	-2.6	-6.1	-2.7	-6.8	-3.9	-2.5	-2.6	-1.3	0.1	-3.7
Keeping House	-1.3	-1.3	-1.2	-4.3	-8.0	-4.0	-6.5	-4.9	-5.4	-2.1	-6.4	-2.4	-0.2
Student	-3.8	1.0	-0.1	-1.3	-8.5	-0.8	-3.1	-5.2	-1.0	3.7	0.3	2.9	-5.6
Retired	-1.1	-0.1	9.2	-3.6	-6.7	1.1	-2.7	-5.6	-6.4	3.3	-3.0	-3.7	-6.7
NCHILDRN													
No Children	-0.0	0.0	-0.1	[illegible]	0.9	-0.6	-0.9	-0.2	1.2	-0.5	-0.5	-0.5	-0.7
One 6-11 yrs	1.8	-1.7	-1.4	-4.2	-1.7	0.8	2.1	-1.1	1.4	-0.4	-1.8	1.9	2.7
Two or+ 6-11 yrs	-1.0	0.3	6.7	-4.5	-1.7	2.0	2.3	3.4	-5.0	2.8	[illegible]	2.7	6.1
One under 6	-1.6	2.6	-1.7	-0.3	2.4	2.2	-1.6	1.0	-1.4	1.6	[illegible]	1.1	-0.5
One 0-5, One 6-11	-3.1	-2.6	3.7	-6.2	-3.4	4.2	7.7	-1.1	-3.8	2.0	1.0	0.2	-2.8
One 0-5, Two or+ 6-11	2.0	0.4	-0.5	-0.8	-5.0	3.1	-2.7	-2.1	-4.8	-2.4	-0.8	-0.3	6.9
Two or+ 0-5	2.2	-0.5	-1.9	-4.1	-4.0	-0.4	4.9	3.1	-7.2	2.7	3.0	-1.2	1.3
Two or+ 0-5, One 6-11	-3.0	5.3	[illegible]	-7.9	-5.6	0.0	2.4	-0.5	-11.2	3.1	3.5	3.0	-4.2
Two or+ 0-5,2 or+ 6-11	7.2	-4.5	1.9	-5.5	0.2	8.6	6.1	0.5	-6.3	0.9	12.2	5.8	14.1

the better educated, younger (but not youngest) adults, whites and males. On the other hand, a preference for bluegrass is much less common among blacks, Hispanics, "other" races, and those over 75 years old. When other factors are held constant, lower income individuals are more likely than those with higher incomes to enjoy bluegrass (probably due to removing the impact of education).

Rock Music

Enjoyment of rock music is strongly correlated by age -- adults under 25 are about ten times as likely as those over 55 to enjoy rock. The college educated, except those who attended graduate school, are also noticeably more likely than average to like rock. Those of middle incomes, Hispanics, and males are also somewhat more likely to prefer rock music.

Mood or Easy Listening Music

Better educated, wealthier, middle-aged, white, and female respondents are more likely than the average to enjoy mood or easy listening music. Much of the variation by income is attributable to the influence of other factors such as education.

Folk Music

Folk music is appreciated more by those with higher incomes, better educated, whites, and middle-aged groups. When other factors are controlled, income variations decrease (probably due to removing the influence of education), and younger individuals are consistently less likely than older individuals to enjoy folk music.

Barbershop Music

People over the age of 45, and those with household incomes over

$50,000 are most likely to enjoy barbershop music. If other factors are controlled, the variation predicted by income declines, but the variation predicted by age and education increases.

Hymns or Gospel Music

Blacks, older persons, lower income individuals, the less educated, and women are more likely to enjoy listening to hymns or gospel music. After adjusting for the impact of other factors, education accounts for little variation in preference for this type of music.

3) DIMENSIONS AND CLUSTERS OF MUSIC PREFERENCES

Since audiences for a particular type of music tend also to enjoy certain other types of music, it is likely that music preferences form around dimensions or clusters. These dimensions imply that when a person's preference for one type of music is known, then he or she probably prefers other types of music as well. Table 9.5 shows the three dimensions of music preference indicated by a factor analysis of musical preferences. The highest correlations under each factor indicate a clustering of the associated musical preferences (in terms of an underlying hypothetical factor).

This factor analysis generated three dimensions of music preferences. Major types of music on each dimension are marked by an asterisk.

The first dimension includes classical/chamber music, opera, show tunes, and big band music. Basically, this dimension clusters music having its roots in the more European classical tradition.

The second dimension clusters country-western, bluegrass, and to a lesser extent folk and barbershop music preferences. In contrast to the first dimension, this group derives from white American folk traditions.

Preferences for jazz, blues, and rock music define the third dimension. This dimension represents types of music that have their roots in the folk traditions of black Americans.

In other words, a person who enjoys a type of music belonging to one of these traditions is likely to enjoy the other music types within that tradition and less likely to enjoy music belonging to the other two traditions. (Folk and barbershop are at the fringes of both cluster 1 and cluster 2.)

Table 9.5: Dimensions of Music Preferences: (Varimax Rotated Factor Matrix)

	Factor 1	Factor 2	Factor 3
Classical Music	*.616	.022	.097
Opera	*.533	-.003	-.006
Show Tunes	*.649	.113	.107
Jazz	.324	.029	*.592
Soul/Blues	.220	.117	*.573
Big Band	*.488	.266	.118
Country-Western	-.089	*.527	.006
Bluegrass	.104	*.586	.228
Rock	-.111	-.008	*.496
Mood/Easy Listening	.374	.182	.139
Folk	.403	*.492	.164
Barbershop	.420	*.439	-.018
Hymns/Gospel	.221	.322	-.098

This factor analysis has generated the three dimensions of music preference shown in Figure 9.1. Several interpretations of the dimensions that structure this space are possible (as noted in Chapter 2, no information about the phenomena under investigation are put into the factor analysis program; it simply generates the structure of the space from the numbers (correlations) fed into it). The first (horizontal) dimension contrasts classical, opera and operetta-musicals on the right, with country-western music on the left; this could reflect a "complex vs. simple" music distinction, except that other simple forms of music (folk, hymns, etc.) are not located on the left side of the picture. More likely, it is reflective of the social characteristics of the audience for these types of music, with the classical forms of music on the right preferred by older and better educated audiences -- while rock and country audiences are relatively younger and less educated. Both age and education factors, therefore, are involved within this dimension.

The second (vertical) dimension contrasts country and bluegrass music at the top (with opera, rock, jazz and classical music further away from the top), suggesting a rural-urban distinction. This is further supported by the contrast between folk and barbershop near the top, and soul music and operetta at the other end.

The third dimension contrasts "upbeat" (rock, soul and jazz) music from the rest. It suggests an age dimension.

It is not necessary, however, to have the dimensions clearly labelled to gain insight into the structure of music preferences in Figure 9.1. One can also examine the clustered patterns of the types of music, in terms of those forms of music that are close to each other spatially (such as bluegrass and country-western, soul music and jazz; or classical music,

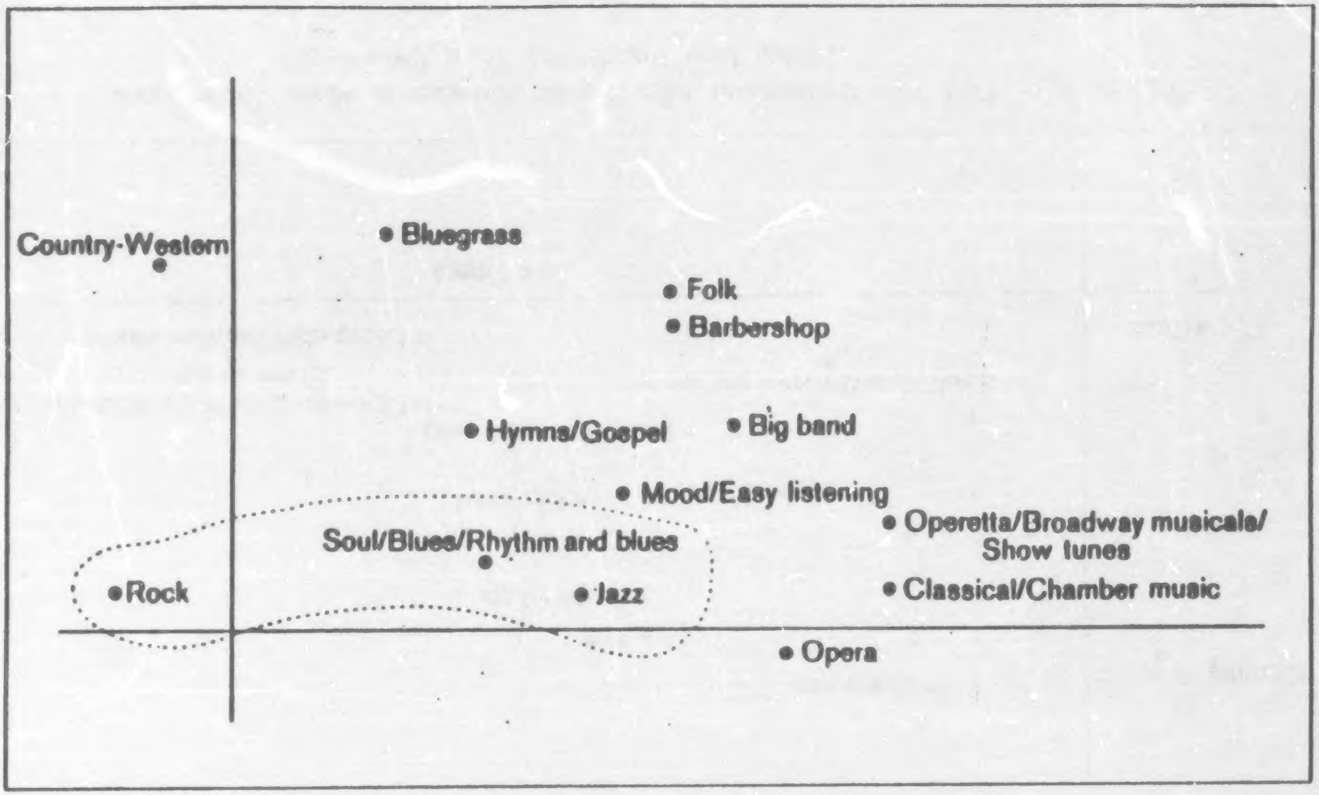


Figure 9.1: First Two Dimensions from Factor Analysis of Music Preferences (Dotted Line Represents Third Dimension).

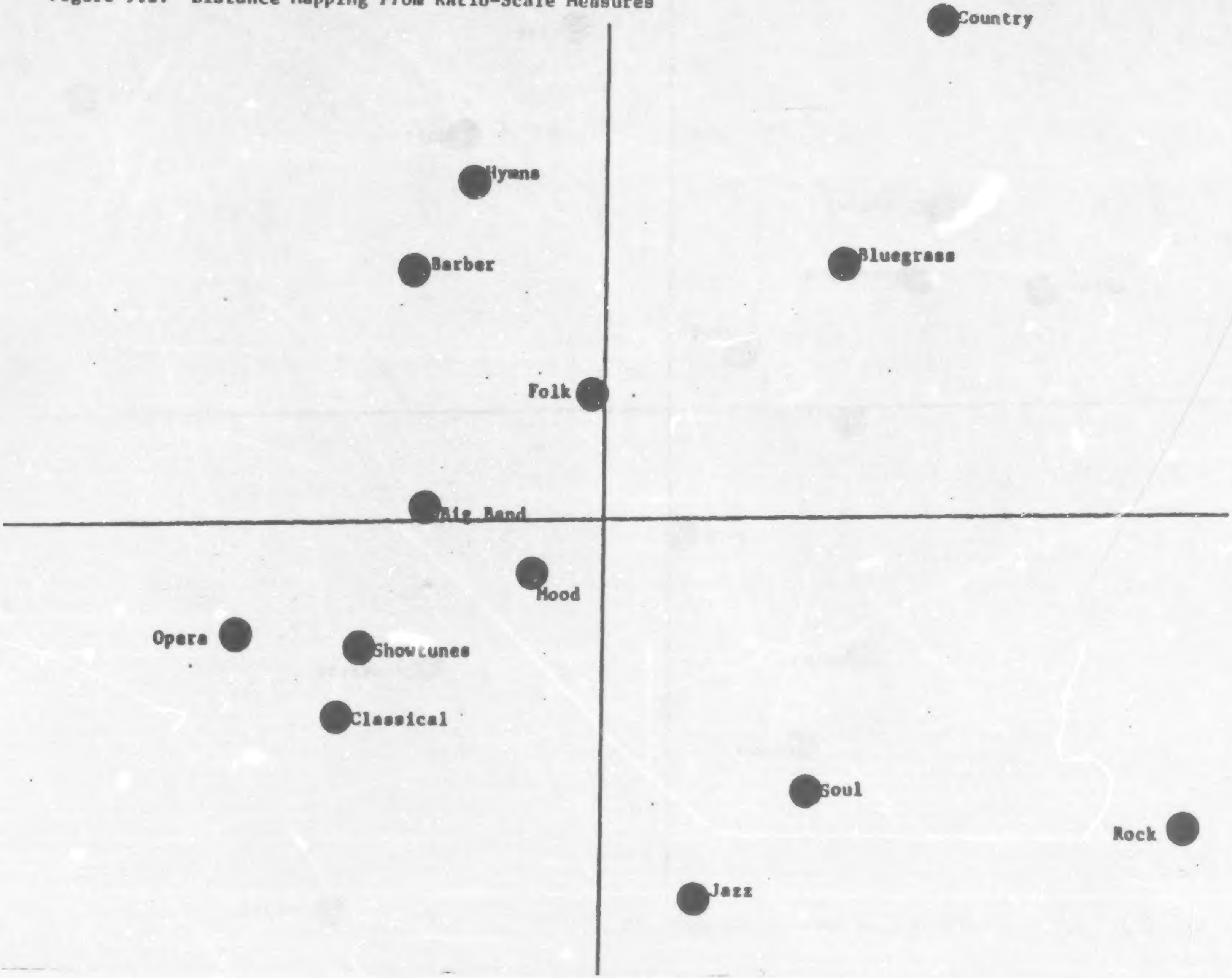
operettas/musicals and opera; or folk and barbershop). There are 78 pairings of music preferences represented in Figure 9.1 and the diagram makes it possible to envision all these pairings in relation to each other in a single graphic portrayal.

More simplified dimensions were afforded by a multidimensional analysis utilizing the ratio-scale properties of these preference data; these properties were reflected in a new distance measure of perceived (musical) similarity based on log-linear analysis and Euclidian geometry (Figure 9.2). While the dimensions are simplified to two, it is clear that the basic clusterings in Figure 9.1 are maintained: classical vs. country, country-bluegrass vs. rock, soul and jazz.

Moreover, the structure of music preferences found in Figure 9.1 does not hold within all segments of the public. Separate factor analyses of the music preference data for nine different age and education categories are presented in Figure 9.3. They indicate that the basic pattern represented in Figure 9.1 is found in only two categories: the middle-aged/low education (group 4) and the older/less educated (group 7). Among all the younger age groups (numbers 1,2 and 3), the horizontal dimension contrasts the high-low music categories with country and rock music together, and the vertical dimensional separates easy listening and big band music from the other forms. And in the remaining four groups (numbers 5,6,8 and 9), it is the country-bluegrass pairing above that defines the dimensions, with the more classical forms of music defining the second dimension.

The analyses in Figures 9.1 and 9.3 indicate significant differences in music preference by factors other than social class and the "high culture vs. popular culture" distinction. In particular, significant differ-

Figure 9.2: Distance Mapping From Ratio-Scale Measures



ences in preference are found across age cohorts as noted in Table 9.3. In addition, the music based on the classical tradition (classical-chamber music and opera) tends to be more distinctive from others, than are rock music and country-western music from each other.

The reasons that these differential clusterings occur in these particular age-education groups is a topic requiring further analysis and study. The clusters do make clear, however, that not all population groups share the space in Figures 9.1 and 9.2, and that, as these young people age, we may find some dramatic restructuring of patterns of music preferences in the years ahead.

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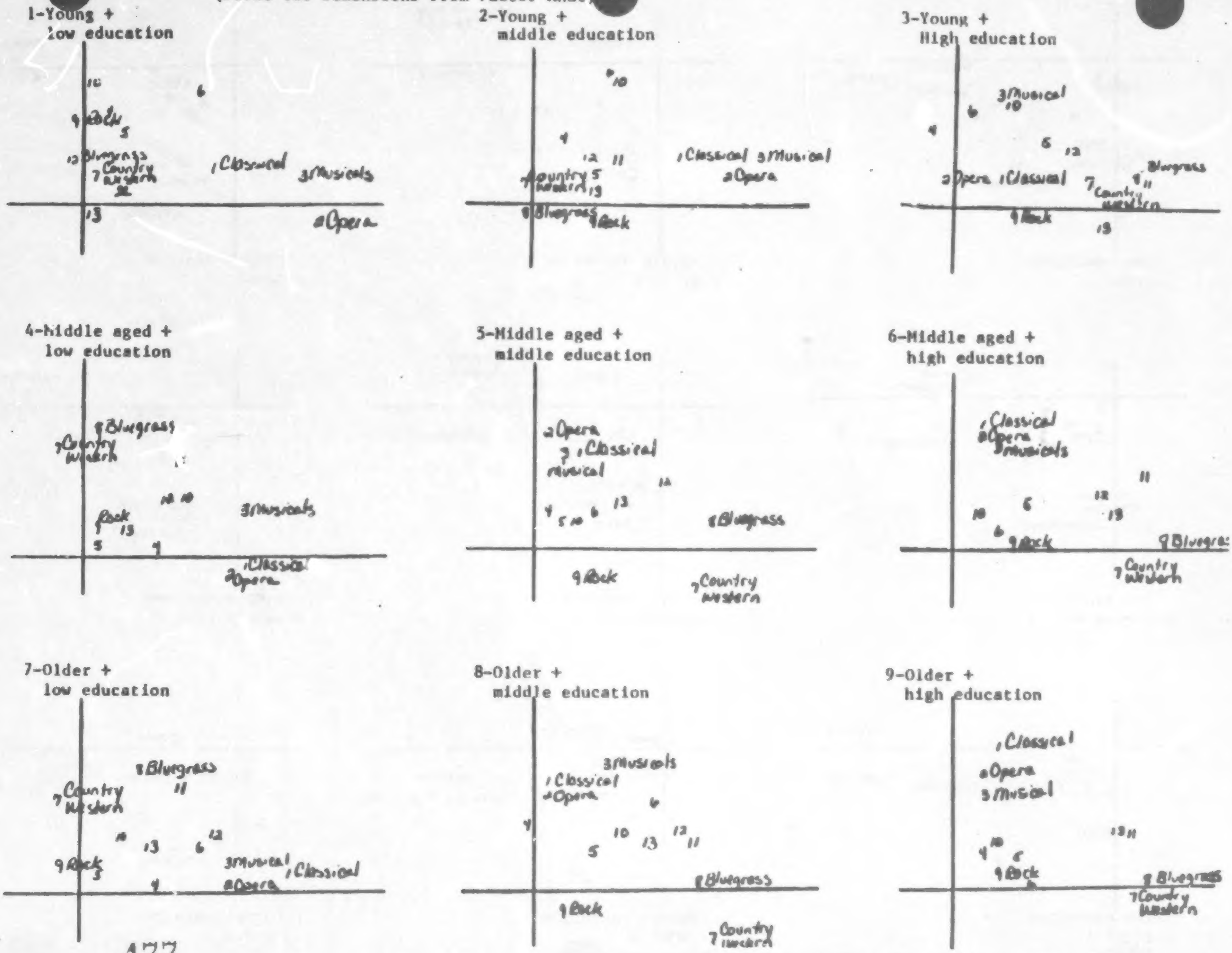
Figure 9.3: Dimensional Protrayals of Nine Cohort-E[illegible]tion Groups in Table 2 (First Two Dimensions from Factor Analy[illegible]



4) BACKGROUND DIFFERENCES AND PREFERENCES ON DIMENSIONS

Thus far, our analysis has established that respondents with particular background characteristics are likely to prefer certain types of music. Furthermore, preferences for different forms of music tend to be associated with each other. The analysis now turns to the dimension of preferences; specifically, do individuals of particular social backgrounds tend more than others to have a wider range of preferences in music along the dimension discussed in the previous section.

Table 9.6 presents data on indices of preferences broken down by ten background variables. Three indices of preference are discussed: the first is an index of the number of preferences for all thirteen types of music; the second is an index of the number of preferences among the four more "serious" types (classical, opera, jazz and show tunes) suggested as the first dimension in Figure 9.1; the third is an index of the number of preferences among the the remaining nine types of music.

Table 9.7 presents the relationships between these three indices and each background variable after adjustment to hold the other nine background factors constant.

Index of Preferences for All Types of Music

The average person expresses a preference for approximately four of the thirteen types of music. Respondents of certain social backgrounds report more or fewer preferences than average. For example, college graduates, those in households earning over $50,000, and professionals report about five musical preferences on the average. In addition, certain ethnic groups and marital status groups provide some sharp differences.

When other factors are controlled, considerable variation still exists

Table 9.6: Music Preference by Background Factors

	All Music	Prefer Classic, Opera, Tunes, Jazz	Prefer Other Than Classic, Opera, Tunes, Jazz	Prefer Classic, Opera, or Jazz
GRAND MEAN	3.9%	0.9%	3.0%	0.6%
Income:				
Under $10,000	-0.6	-0.3	-0.3	-0.2
$10,000 - $14,999	-0.5	-0.2	-0.3	-0.1
$15,000 - $19,999	-0.2	-0.1	-0.1	-0.1
$20,000 - $29,999	-0.1	0.0	-0.1	0.0
$30,000 - $49,999	0.5	0.2	0.3	0.1
$50,000 and over	1.5	0.8	0.7	0.7
Not applicable	0.0	0.0	0.0	0.0
SMSA:				
Central city of SMSA	0.0	0.1	-0.1	0.1
SMSA, not central city	0.1	0.1	0.0	0.1
Not in SMSA	-0.1	-0.2	0.1	-0.1
Age:				
18 - 24 years	-0.4	-0.2	-0.2	-0.3
25 - 34 years	0.1	0.0	0.1	-0.1
35 - 44 years	0.2	0.1	0.2	0.1
45 - 54 years	0.4	0.2	0.2	0.2
55 - 64 years	0.3	0.1	0.1	0.2
65 - 74 years	-0.1	0.0	0.0	0.1
75 - 96 years	-1.1	-0.2	-0.9	0.0
Marital:				
Married	0.0	0.0	0.0	0.0
Widowed	-0.4	-0.1	-0.3	0.1
Divorced	0.8	0.3	0.5	0.2
Separated	-0.6	-0.3	-0.4	-0.3
Never married	-0.1	0.0	-0.1	-0.1
Ethnic-Race:				
White, other origin	0.2	0.0	0.2	0.0
White, British Isles	0.4	0.1	0.3	0.1
White, W. Europe	0.1	0.0	0.1	0.0
White, E. Europe	0.4	0.4	0.0	0.4
Hispanic	-0.9	-0.1	-0.7	-0.1
Black (exclude Hispanic)	-0.8	-0.1	-0.7	-0.3
Other races	-0.6	0.1	-0.8	0.1
White, unknown origin	-0.6	-0.5	-0.1	-0.3
Sex:				
Male	-0.1	-0.1	-0.1	-0.1

Female	0.1	0.1	0.1	0.1
Education:				
Grade School	-1.5	-0.6	-1.0	-0.4
Attended High School	-0.7	-0.4	-0.3	-0.3
High School Graduate	-0.2	-0.2	0.0	-0.1
Attended College	0.6	0.2	0.4	0.1
College Graduate	1.0	0.6	0.5	0.4
Attended Grad School	1.4	0.9	0.6	0.7
Work Hours:				
None	-0.3	-0.1	-0.2	0.0
1 - 29	0.2	0.1	0.1	0.0
30 - 39	-0.1	-0.1	0.0	0.0
40 hours	0.1	0.1	0.0	0.0
41 - 49	0.5	0.1	0.4	0.1
50 or more	0.5	0.1	0.4	0.1
Work:				
Professional	1.3	0.6	0.7	0.5
Managerial	0.7	0.3	0.4	0.2
Sales, Clerical	0.3	0.1	0.2	0.1
Craftsman	-0.4	-0.3	-0.2	-0.2
Operatives	-0.5	-0.3	-0.2	-0.3
Laborers	-0.8	-0.4	-0.4	-0.3
Service Workers	-0.2	-0.1	-0.1	-0.1
Not Working	-0.4	-0.1	-0.3	-0.1
Keeping House	-0.3	-0.1	-0.2	0.0
Student	-0.1	0.0	0.0	-0.1
Retired	-0.5	-0.1	-0.4	0.0
# of Children:				
None	0.1	0.1	0.0	0.0
One, 6 - 11 years	0.1	-0.1	0.1	0.0
Two+, 6 - 11 years	0.2	0.0	0.2	0.0
One, under 6	-0.2	-0.1	-0.1	-0.2
One, 0 - 5/One, 6 - 11	-0.3	-0.2	-0.1	-0.2
One, 0 - 5/Two+, 6 - 11	-0.4	-0.1	-0.2	-0.1
Two+, 0 - 5	-0.3	-0.2	-0.1	-0.2
Two+, 0 - 5/One, 6 - 11	-0.4	-0.2	-0.2	-0.1
Two+, 0 - 5/Two+, 6 - 11	0.2	-0.1	0.3	-0.1

among education, income, age, marital, and ethnic groups. After adjustment, gender differences increase but variations among occupational categories decrease. (Education and income are likely to be the major "other" factors.)

Index of Preference for "Serious" Music Forms

The average person reports a preference for about one type of music among the classical, opera, show tunes, and jazz categories. However, better educated persons, wealthier persons, and professionals tend to express a greater range of preference for these music forms.

Education remains the strongest predictor among the ten factors after controlling for the influence of other variables. While the variation drops markedly between income groups, income is still a relatively strong explanatory factor. Other factors, possibly differential income and education, reduce most of the variation among ethnic and occupational groups.

Index of Preference for Other Types of Music

The average person reports preference to listen to about three of the nine additional types of music: soul/blues/rhythm and blues, big band, country-western, bluegrass, rock, mood/easy listening, folk, barbershop, or hymns/gospel. Higher income persons, better educated persons, upper-level white collar workers, those working longer hours, and divorced persons are most likely to prefer a wider range of these types of music.

Most of the variation by marital status, occupation, and number of children is attributable to the impact of other factors. The variation within income and ethnic groups are also substantially reduced by holding other factors constant, but clear distinctions remain. Better educated persons and older persons tend to prefer more of these types of music after

Table 9.7: Music Preference Adjusted for Background Factors

	All Music	Prefer Classic, Opera, Tunes, Jazz	Prefer Other Than Classic, Opera, Tunes, Jazz	Prefer Classic, Opera, or Jazz
GRAND MEAN	3.9%	0.9%	3.0%	0.6%
Income:				
Under $10,000	-0.1	-0.1	0.0	-0.1
$10,000 - $14,999	-0.1	0.0	-0.1	0.0
$15,000 - $19,999	0.0	0.0	0.0	0.0
$20,000 - $29,999	-0.1	0.0	-0.1	0.0
$30,000 - $49,999	0.1	0.0	0.1	0.0
$50,000 and over	0.8	0.5	0.3	0.3
Not applicable	-0.1	0.0	0.0	0.0
SMSA:				
Central city of SMSA	0.1	0.1	0.0	0.1
SMSA, not central city	-0.1	0.0	-0.1	0.0
Not in SMSA	0.0	-0.1	0.1	-0.1
Age:				
18 - 24 years	-0.6	-0.3	-0.3	-0.3
25 - 34 years	-0.2	-0.1	-0.1	-0.2
35 - 44 years	0.0	0.0	0.0	0.0
45 - 54 years	0.4	0.2	0.2	0.2
55 - 64 years	0.5	0.2	0.2	0.3
65 - 74 years	0.5	0.2	0.3	0.2
75 - 96 years	-0.2	0.1	-0.4	0.2
Marital:				
Married	-0.1	0.0	0.0	0.0
Widowed	-0.1	0.0	-0.1	0.0
Divorced	0.6	0.2	0.4	0.1
Separated	-0.1	-0.1	0.0	-0.1
Never married	0.1	0.1	0.0	0.1
Ethnic-Race:				
White, other origin	0.1	0.0	0.1	0.0
White, British Isles	0.2	0.0	0.2	0.0
White, W. Europe	0.1	0.0	0.1	0.0
White, E. Europe	0.1	0.2	-0.1	0.2
Hispanic	-0.5	0.0	-0.5	0.0
Black (exclude Hispanic)	-0.5	0.0	-0.5	-0.2
Other races	-0.9	-0.1	-0.9	-0.1
White, unknown origin	-0.2	-0.2	0.0	-0.1
Sex:				
Male	-0.3	-0.1	-0.1	-0.1

Female	0.2	0.1	0.1	0.1
Education:				
Grade School	-1.4	-0.6	-0.8	-0.5
Attended High School	-0.7	-0.4	-0.3	-0.3
High School Graduate	-0.1	-0.1	0.0	-0.1
Attended College	0.6	0.3	0.4	0.2
College Graduate	0.8	0.5	0.3	0.4
Attended Grad School	1.0	0.7	0.3	0.6
Work Hours:				
None	0.2	0.0	0.2	0.0
1 - 29	-0.2	0.0	-0.2	0.0
30 - 39	-0.4	-0.1	-0.3	0.0
40 hours	-0.3	0.0	-0.2	0.0
41 - 49	0.2	0.1	0.1	0.1
50 or more	0.2	0.1	0.1	0.0
Work:				
Professional	0.7	0.2	0.5	0.1
Managerial	0.3	0.1	0.3	0.0
Sales, Clerical	0.2	0.0	0.2	0.0
Craftsman	0.0	-0.1	0.0	0.0
Operatives	0.2	0.0	0.2	0.0
Laborers	-0.2	-0.1	-0.1	-0.1
Service Workers	0.2	0.0	0.2	0.0
Not Working	-0.3	0.0	-0.3	0.1
Keeping House	-0.5	-0.1	-0.4	0.0
Student	-0.2	0.0	-0.2	0.0
Retired	-0.3	0.0	-0.3	0.1
# of Children:				
None	0.0	0.0	0.0	0.0
One, 6 - 11 years	0.0	-0.1	0.0	0.0
Two+, 6 - 11 years	0.2	0.0	0.2	0.1
One, under 6	0.0	0.0	0.0	0.0
One, 0 - 5/One, 6 - 11	0.0	-0.1	0.0	0.0
One, 0 - 5/Two+, 6 - 11	-0.1	0.0	-0.1	0.0
Two+, 0 - 5	-0.1	-0.1	0.0	0.0
Two+, 0 - 5/One, 6 - 11	-0.1	0.0	-0.1	0.0
Two+, 0 - 5/Two+, 6 - 11	0.4	0.0	0.4	0.1

adjusting for the influence of other factors. Age and education may also account for some of the initial variations in background factors (before adjustment).

5) ARTS PARTICIPATION AND MUSIC PREFERENCE

Music preferences can be considered another element of life-style which may predict arts-related behavior. Enjoyment of a particular form of music may reflect a way of life, possibly including attendance at one or more of the arts events.

The correlations, which are presented in Table 9.8 indicate the strength and direction of the relationship between music preferences and attendance at one of the arts events. Correlations of 0.30 - 0.39 will be termed substantial; correlations of 0.20 - 0.29 moderate; correlations of less than 0.20 weak.

Not surprisingly, those respondents who claimed a musical preference for either of the four "serious" types of music are more likely to attend performances of those music forms. A listening preference for jazz or classical music has a substantial relationship with attending, respectively, jazz or classical music performances. Similarly, those preferring to listen to show tunes or operas are also more likely to attend performances of those same types of music.

Generally, preference for the other nine types of music have only weak positive relationships with participation in the arts. The music preferences which serve as moderate correlates of arts attendance are as follows: a preference for blues and attending jazz performances; a preference for opera or show tunes and attending classical music concerts; a preference for classical music or show tunes and attending plays and art museums; and a preference for classical music, show tunes or mood music and reading literature. Thus, while music preferences can predict participation in the arts, the best predictors are preferences for the four more "serious" music

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Table 9.8: Correlations between Listening Preferences for Thirteen Types of Music and Attendance of Selected Arts Performances and Reading Literature

	Arts Participation							
	Jazz	Classical Music	Opera	Musical	Play	Ballet	Art Gallery/ Museum	Read Literature
Enjoy Listening:								
Classical Music	.114	$\boxed{.305}$	.128	.186	.203	.169	.291	.249
Opera	.061	.235	$\boxed{.248}$	.131	.154	.127	.163	.133
Show Tunes	.124	.249	.132	$\boxed{.259}$	.233	.167	.249	.261
Jazz	$\boxed{.318}$	.146	.057	.121	.140	.091	.198	.176
Rhythm and Blues	.214	.087	.030	.088	.100	.084	.142	.124
Big Bands	.087	.145	.059	.120	.123	.060	.175	.124
Country-Western	-.067	-.074	-.063	-.055	-.052	-.027	-.055	-.017
Bluegrass	.049	.054	.005	.016	.049	.024	.060	.057
Rock	.131	.007	-.015	.025	.052	.053	.094	.117
Easy Listening	.055	.109	.024	.143	.101	.063	.146	.270
Folk	.057	.148	.048	.123	.140	.099	.180	.173
Barbershop	.023	.115	.043	.079	.073	.031	.068	.101
Hymns/Gospel	-.009	.047	.001	-.012	-.027	-.014	-.002	-.011

forms. Of the other nine forms, only blues and mood music are associated with arts attendance (or reading literature). In fact, two popular forms of music -- country-western and hymns/gospel -- have a negative association with attending several types of arts performances.

At the same time, preferences for classical music and for show tunes correlate rather well with participation in most of non-musical arts forms -- such as attending stage plays, visiting art galleries and museums and reading novels, short stories, poetry and plays. And the implications of these rather low correlations in Table 9.8 can be seen in different perspective in Table 9.8a, which shows the different "odds ratios" between music preference and arts participation. Thus the 6.0 figure in Table 9.8a indicates that respondents who like classical music are six times more likely to have attended a classical music performance than respondents who do not say they like classical music. Many of the ratios in Table 9.8a are greater than 2.0, meaning that these music perferences are associated with more than twice the rates of arts particpation among individuals without such music preferencs.

Table 9.8a: Odds-Ratios Relations Between Music Preferences and Arts Participation

	Attend Jazz	Classical	Opera	Musical	Play	Ballet	Art Museum	Reading
Classical	2.5	6.0	5.5	2.4	3.2	5.4	3.7	2.2
Opera	1.9	3.5	13.6	2.1	2.6	3.6	2.3	2.0
Showtunes	7.3	4.0	5.6	3.3	3.8	5.0	2.8	2.6
Jazz	7.1	2.4	3.1	1.7	2.3	2.3	2.0	1.7
Blues	3.7	1.7	1.8	1.6	1.9	2.1	1.8	1.5
Big band	1.8	7.3	2.6	1.8	2.1	1.8	1.9	1.6
Country	.8	.7	.5	.8	.7	.7	.8	1.0
Bluegrass	1.5	1.5	1.3	1.3	1.4	1.3	1.4	1.2
Rock	2.5	1.2	.9	1.1	1.3	1.5	1.5	1.4
Mood music	1.5	2.1	1.6	2.2	2.1	1.9	1.9	1.9
Folk	1.7	2.6	2.2	2.0	2.4	2.7	2.1	1.7
rbershop	1.3	2.1	2.2	1.7	1.8	1.6	1.5	1.7
ymns	.9	1.3	1.0	1.0	.9	.9	1.0	1.0

The strength of the relationships between musical preferences for jazz, classical music, opera, and show tunes and attending performances of the respective art forms is represented in still another fashion in Table 9.9. This table highlights the four relationships in Tables 9.8 and 9.8a that most directly focus on music preference and behavior, by presenting the percentage of those who expressed a music preference and also attended a live performance of the same type of music. In each case, those who reported enjoying a particular type of music are at least three times more likely than those not expressing such a preference to attend a performance. As one would expect, a particular listening preference is strongly associated with attending a performance of that type of music.

Table 9.10 shows the same relationship after the effects of ten of the respondents' background chacteristics have been statistically controlled. (The ten background variables are income, age, SMSA location, ethnicity, number of children, gender, occupation, marital status, education, and work hours.) While some of the variation in attendance is attributable to the influence of these background factors, most of the variation in musical preference remains clearly independent of these characteristics. A preference for a particular music form continues to be associated with attendance of performances of the same type of music.

Table 9.9: Preference for Jazz, Classical Music, Opera, and Show Tunes and Attendance of Performance of The Same Music: (Percentage Attending the Same Type of Music)

	Attend Performances of			
	Jazz	Classical Music	Opera	Musicals
Preference for (Same Music):				
No	4%	5%	1%	12%
Yes	27%	31%	15%	40%

Table 9.10: Preference for Jazz, Classical Music, Opera and Show Tunes by Attendance at Performance of The Same Music -- Adjusted for Background Factors* : (Percentage of Respondents Reporting Musical Preference and Attending Performance of that Music)

Preference for (Same Music):	Jazz	Classical	Opera	Musicals
No	5%	7%	1%	15%
Yes	24%	26%	14%	32%

* Background factors are income, age, SMSA, ethnicity and race, number of children, sex and employment status, marital status, education, and number of work hours.

6) INDICES OF MUSIC PREFERENCE AND ARTS PARTICIPATION

The correlations between each of the thirteen musical preferences and participation in the arts suggest that preferences for more "serious" music (jazz, opera, classical music, and show tunes) are the best correlates of participation. We can expect that the number of preferences for "serious" music may also be a strong predictor of participation in the arts. In other words, the more of these music preferences reported by a respondent, the stronger the relationship with participation in the arts.

Tables 9.11 and 9.12 present the data relevant to this hypothesis. The extent of "serious" musical preferences is represented by an index of the number of preferences for jazz, opera, classical music and show tunes. A second index provides a contrast with an index of preferences for the nine other types of music. Table 9.11 shows the associations between these two indices and participation in the arts.

Table 9.12 shows the same associations after the influence of background characteristics has been statistically removed. The first table reveals the strength of the indices as correlates, while the second table suggests the strength of the indices as predictors independent of background factors.

In every case in Table 9.11, the index of "serious" listening preferences (for jazz, opera, classical music, and show tunes) has a relatively strong, positive relationship with participating in the arts. That is, respondents who prefer to listen to more of these types of music are also much more likely to participate in the arts. Moreover, this index generally correlates more clearly with arts participation than does the index of other music preferences.

Table 9.11: Arts Participation by Two Indices of Music Preference (Percentage of Respondents Above or Below the Grand Mean Who Report Attending a Performance or Art Exhibit or Reading Literature in the Previous 12 Months)

	Jazz	Classical Music	Opera	Musical	Play	Ballet	Art Gallery/ Museum	Read Literature	Attendance Index**
GRAND MEAN	9.8%	12.3%	2.4%	18.5%	11.4%	4.2%	22.5%	57.2%	0.8
Classical/ Opera/Jazz Show Tunes									
0	-6.6	-8.9	-1.9	-9.3	-6.9	-3.0	-13.3	-14.3	-0.5
1	2.5	-1.5	-1.1	2.5	1.0	-0.7	5.1	7.7	0.1
2	8.8	15.6	2.0	12.8	8.9	4.9	19.2	19.7	0.7
3	13.6	24.7	5.0	23.1	18.4	8.0	26.7	28.0	1.2
4	19.4	32.4	17.5	23.5	23.8	13.7	33.8	25.9	1.6
*Other Music Preferences:									
0	-3.1	-2.9	0.9	-7.1	-4.8	-1.6	-10.3	-15.8	-0.3
1	-5.3	-6.1	-0.7	-8.0	-5.1	-1.6	-11.0	-15.4	-0.4
2	-1.1	-2.7	-0.7	-1.4	-2.0	-1.2	-4.5	-3.6	-0.1
3	-1.2	-0.6	-0.8	-0.2	0.1	-0.6	1.7	4.0	-0.0
4	3.1	2.7	-0.7	3.9	2.5	1.7	7.7	8.4	0.2
5	3.5	2.9	1.9	8.0	2.6	3.0	7.9	9.0	0.3
6	4.5	5.1	0.9	7.0	4.0	1.9	10.3	14.0	0.3
7	9.5	15.3	2.2	9.7	12.6	2.9	14.0	20.4	0.7
8	9.1	16.3	3.5	10.5	15.3	1.8	22.7	22.0	0.8
9	12.4	16.7	4.7	16.7	8.1	7.1	18.0	17.3	0.8

Notes: *"Other Music Preferences" is an index based on preferences for either soul/blues, big band, country-western, bluegrass, rock, mood, folk, barbershop, or hymns/gospel.

**"Attendance Index" is based on a count of recent attendances of the seven arts events.

Table 9.12 indicates that when background factors are controlled, the variation is reduced -- sometimes by as much as half; however, the relationship between a greater number of preferences for art music forms and participation in the arts remains strong and positive. This index of preferences for "serious" music is thus a useful predictor of arts attendance, independent of the effects of background characteristics.

On the other hand, when background variables are held constant, the relationship between the second index (number of preferences for non-art music forms) and participation in the arts largely disappears and, in fact, usually reverses direction. Consequently, a greater number of other music preferences does not predict higher rates of art participation, but often lesser arts participation once background factors are controlled.

Table 9.12: Arts Participation by Two Indices of Music Preference --
Adjusted for Background Factors*:
(Percentage of Respondents Above or Below the Grand Mean Who
Report Attending a Performance or Art Exhibit or Reading
Literature in the Previous 12 Months)

	Jazz	Classical Music	Opera	Musical	Play	Ballet	Art Gallery/ Museum	Read Literature	Attendance Index
GRAND MEAN	9.8%	12.3%	2.4%	12.5%	11.4%	4.2%	22.5%	57.2%	0.8
Classical/Jazz/ Opera/Show Tunes									
0	-4.9	-8.9	-1.8	-5.4	-3.9	-2.0	-8.5	-7.7	-0.3
1	1.2	-1.5	-1.1	1.2	0.5	-1.1	3.3	4.7	0.0
2	5.7	15.6	1.8	7.3	4.4	3.6	12.7	10.6	0.5
3	11.2	24.7	4.7	14.2	11.1	5.8	16.4	14.5	0.8
4	16.1	32.4	17.6	14.1	14.7	11.8	21.2	11.7	1.2
Other Music Preferences:									
0	1.1	-2.9	2.4	-1.4	-0.1	0.3	-2.3	-3.4	0.0
1	-1.9	-6.1	1.0	-2.0	-0.6	0.7	-2.9	-5.9	-0.1
2	0.1	-2.7	0.2	1.5	0.2	-0.1	-1.1	-0.9	0.0
3	-0.7	-0.6	-0.3	-0.0	0.2	-0.5	1.9	2.9	0.0
4	1.4	2.7	-1.3	0.5	-0.1	0.7	3.5	3.7	0.0
5	1.0	2.9	1.0	3.2	-0.8	1.5	1.6	0.2	0.1
6	-0.3	5.1	-1.1	-0.5	-1.7	-0.8	0.2	3.3	-0.1
7	3.8	15.3	-1.8	-0.9	4.4	-1.3	0.4	7.7	0.1
8	0.1	16.3	-3.5	-5.1	2.7	-5.2	3.0	4.2	-0.1
9	1.4	16.7	-4.0	2.3	-4.3	-1.1	-1.6	-1.3	-0.1

Notes: "Other Music Preferences" is an index based on preferences for either soul/blues, big band, country-western, bluegrass, rock, mood, folk, barbershop, or hymns/gospel.

"Attendance Index" is based on a count of recent attendances of the seven arts events.

* Background factors are income, age, SMSA, ethnicity and race, number of children, gender and occupation, marital status, education, and number of work hours.

SUMMARY

The focus in this chapter has been on music preference as an indicator of general cultural orientation. The analysis has provided several findings about the extent and nature of musical preferences among U.S. adults. The extent of preferences among thirteen types of music varies greatly, ranging from an estimated 96 million adults enjoying country-western music to about 16 million enjoying opera. Moreover, the extent of preference for particular music forms differs by social background factors, particularly education, age, and income. For example, rock music is most likely to be preferred among the college educated, the young, members of middle income households, and males; on the other hand, hymns/gospel music tend to be preferred by the less educated, older persons, members of lower income households and females.

Music preferences tend to cluster along three dimensions, which can he categorized as deriving from traditions of either classical European ("serious" music such as classical opera, jazz or operettas/musicals), white American folk, or black American folk. Those persons with a college education, a higher household income, or a professional occupation tend to enjoy more types of music in general, including both the four "serious" types and the nine other forms included in the study.

While preference for the four "serious" music forms tends to predict higher arts participation, so does preference for the other nine types of music. However, after other background and music preference features are controlled, preferences for these other nine forms of music are poor predictors of participation in the arts.

Chapter 10

PROJECT OVERVIEW

The 1982 Survey of Public Participation in the Arts (SPA'82) was the largest single survey of American's cultural activities and attitudes ever conducted. This national survey interviewed more than 17,000 respondents across the country and took the full 12 months of the calendar year 1982 to complete.

The SPA '82 data were collected by the United States Bureau of the Census to ensure that they met rigorous scientific standards of sample design, respondent cooperation and interview standardization. This also ensured that arts participation data could be projected to the national population with unprecedented confidence.

Further methodological details on the sampling and interview procedures are given at the end of this project overview and in Chapter 2 of the main report.

SOME GENERAL FINDINGS

Attendance at Live Arts Performances: Extensive data were collected on the public's reported attendance at seven (7) types of live arts performances and events. Almost 40% of all SPA '82 respondents reported having attended at least one of these seven types of live arts performance in the previous 12 months.

Considerable variation in annual participation rates was found across the seven types of arts performances. They ranged from 3 to 4% annual attendance rates for opera and ballet to 22% for visiting an art gallery or museum. Some 10% of survey respondents reported attending a live jazz performance in the previous year and 13% a live classical music performance. Some 19% went to a live musical stage play and 12% attended a non-musical stage play.

In addition, more than 3% of the sample, representing almost 5 million American adults, reported that they themselves had appeared in a public performance of one of these types of arts events in the previous year.

Audience Characteristics: The segmentation of the population attending these seven types of arts events followed a fairly regular pattern. Thus, attendance at live arts events was:

- . Mainly related to a person's socio-economic background, particularly in terms of education, but also in terms of occupation and income;
- . Higher among women than among men, being particularly high among unmarried women with no children;
- . Higher among middle-aged and younger adults than among older people;
- . Lower among rural residents than among people living in urban or suburban areas; lower also among residents of the South than other regions;
- . Slightly higher among unmarried adults than among married people -- and slightly higher among adults with no children living in their household (than among adults with children in the household);
- . Lower among respondents who were not in the labor force (full-time homemakers, retired, unemployed, etc.) vs. those who were employed in a paid job;
- . Higher among white respondents than among blacks or other racial groups.

Many of these population sub-group differences, however, did not hold up after other factors were controlled statistically. In particular, the differences by income, by age, by urbanicity, by region, by employment status and by race were considerably reduced or eliminated after control for other factors -- especially after control for the respondent's gender and educational background. Considerable caution, therefore, needs to be exercised in considering these other demographic factors as determinants or predictors of arts participation.

Other Arts Activities: The SPA '82 data also provided baseline information on several other arts-related activities. For example:

- Over half of respondents in the survey (56%) reported they had read a novel, short story, poem or play in the previous 12 months; an even larger proportion (84%) said they had read any book or magazine over that period.
- A fifth of respondents (20%) reporting reading poetry or listening to a poetry reading.
- Some 39% of respondents said they had attended an art or craft fair in the previous year.
- Some 37% of respondents reported visiting an historic site for its historic or design value.

In addition, substantial proportions of respondents (representing between 10 and 18 million American adults) reported participating in more direct forms of arts activities. Some 11% reported making photographs, movies or video tapes as an artistic activity; 10% reported painting, drawing, sculpting or printmaking; and 7% reported having done creative writing in the form of stories, poems, plays, and the like. In addition, 11% of respondents said they had taken a lesson in some arts-related activity (e.g. literature, music) in the previous 12 months, and over 3% reported doing some form of "backstage" work (lighting, sets, promotion) in connection with a live arts performance.

It might be thought that participation in these other arts-related activities might take time away from or otherwise interfere with attendance at the seven types of arts events noted above. However, the SPA survey found exactly the opposite situation. The more particular individuals participate in these other arts-related activities (e.g. painting, taking lessons, visiting historic sites, making photographs), the more they attended arts performances and events.

This principle, referred to as "the more, the more", is found throughout the topic areas examined in the SPA '82 study. The more-more pattern is thus a recurrent and dominant theme in this report, applying to the survey questions related to mass media usage for arts-related content, questions related to prior lessons or other "socialization" experiences in music or the arts, to questions related to preference for more serious types of music and to questions related to expressed interest in attending more arts performances and events. The principle applies to many non-arts activities as well: the more active and extensive a person's leisure activities and interests are, the more likely that person is to attend arts events and performances.

Before examining these other SPA '82 survey topic areas in more detail, we turn first to a brief review of answers from the survey to ten main policy questions that the study was designed to address.

TEN POLICY QUESTIONS

Ten major policy questions that the National Endowment for the Arts would be addressing from SPA '82 were identified in advance of its being conducted. As described and elaborated upon in the detailed memorandum of January 26, 1983 from the Endowment's Research Division, these ten questions are as follows:

1) How large is the current audience for individual arts and for the arts as a whole? As noted above, almost 40% of the SPA '82 sample reported that they had attended one of the seven arts events described in the survey's "core" questions -- the questions which were asked of all respondents in the survey. More detailed information is provided in Table 1, which first shows the overall estimated participation rate for each of the main arts-related activities in the survey. The third column in Table 1 shows the projected number of American adults represented by these percentages. These are based on the U.S. population of nearly 165 million adults in 1982.

Follow-up questions identified some slight differences in frequency of participation among those people who attended these seven activities. For example, among respondents who reported going to art galleries/museums and to live jazz music performances in the previous month, the average estimated number of such attendances were 1.7 per month; among those who attended live performances of ballet and musical theatre, the average estimated number of performances attended was 1.3 per month. How these translate to yearly attendance figures is not clear from the present data, but they do indicate that the proportions in Table 1 may need some further adjustment before they can be considered reflective of the overall number of person attendance across the year.

The third column of Table 1 shows the important sampling error bounds or confidence limits to be taken into account in using these estimates. Thus, the 10% estimate for jazz is subject to +/- 1% confidence interval, meaning that the 10% figure is sub-

Table 1: Arts Participation by Adults (18 Years and Older) in the 12 Months Preceding the Interview

	Estimated Participation Rate*	95% Error Factor (+/-)	Estimated Number of Participants (in Millions)
Attended:*			
Jazz Performances	10%	1%	16 million
Classical Music Performances	13%	1%	21
Opera Performances	3%	0.4%	5
Musical Plays or Operettas	19%	1%	31
Plays (non-musical)	12%	1%	20
Ballet Performances	4%	0.4%	7
Visited:			
Art Museums or Galleries	22%	1%	36
Historic Parks, Monuments, Buildings or Neighborhoods for Historic or Design value	37%	2%	61
Art or Craft Fair or Festival	39%	2%	64
Performed Before the Public: (professional and amateur)			
Played Classical Music	0.8%	0.1%	1.4
Played Jazz Music	0.8%	0.1%	1.3
Danced in Ballet Performance	0.1%	0.03%	0.2
Acted in Nonmusical Role	0.8%	0.1%	1.3
Sang in Musical Play or Operetta	0.9%	0.1%	1.5
Sang in Opera	0.1%	0.1%	0.1
Read:			
Books and Magazines	84%	1%	138
Novels, Short Stores, Poetry or Plays	56%	1%	93
Read or Listened to Poetry	20%	1%	33

*At least once in the last 12 months

ject to being as much as a percentage point above or below this figure due to the sampling error inherent in a survey of this size. That means that we can be 95% confident that the true proportion of the population reporting participation at live jazz performances is between 9% and 11%.

In general, people who attend one of these types of arts performances are more likely to attend each of the others. Thus, the attendance rate for classical music performance among people who attend opera is 3%, while the attendance rate at classical music performances for non-goers is much less, only 11%. That means that opera-goers are 5.6 times more likely to attend classical concerts as are non-goers.

Ratios of roughly this magnitude were found across all pairings of the seven core questions of arts participation (jazz with ballet, musicals with stage plays, etc.). They obviously indicate considerable overlap across arts audiences rather than a pattern of segmentation of the arts audience into jazz fans, opera buffs, etc. The magnitude of these ratios is a further example of the more-more principle.

2) For the performing arts, what is the relationship between attendance at live performances and participation via television, radio, and recordings? Consistent again with the more-more principle, respondents who report watching or listening to arts-related content in mass media programs are also more likely to attend live arts performances. The full data are shown in Table 2, and indicate for example, that 28% of respondents who reported watching a jazz program on television attended a live jazz performance, compared to only a 6% attendance rate at live jazz performances among people who said they had not seen a TV jazz program. Approximately the same ratios held for listening to jazz on the radio (32% attendance among jazz radio listeners vs. 6% among non-listeners) and on recordings (32% vs. 4%).

The more media used, the greater likelihood of attendance: thus the attendance rate for live jazz performances rose to 44% among respondents who listened to jazz music on all three media (TV, radio and recordings).

Far higher proportions of respondents followed arts-related content in the mass media than who attended parallel arts performances in person. Thus, compared to the 10% who attended a live jazz performance, 32% of respondents said they had listened to jazz music on television, radio or recordings; roughly equivalent proportions of the sample had heard jazz music on television (18%), on radio (18%) or on records or tapes (20%).

Roughly the same proportion had heard classical music on each of the three media: television (25%), radio (20%) and recordings

Table 2: Differences in Arts Participation by Media Exposure

a) Attended live performances of

	Jazz	Classical	Opera	Musicals	Non-Musical Plays	Ballet	Art Gallery/ Museum
TOTAL SAMPLE	10%	13%	3%	19%	12%	4%	22%
Attendance among those who:							
Watched __*__ on TV	28%	30%	10%	41%	25%	15%	46%
Listened to ___ on radio	32%	33%	15%	37%	31%	NA	NA
Listened to ___ on recordings	32%	35%	14%	42%	NA	NA	NA

*Appropriately matched arts activity (e.g., Watched jazz on TV; Listened to opera on radio)

**This figure represents the 28% attendance rate at live jazz performances among those who watch a jazz program on television

NA: Media question not asked

(22%). Some 38% had heard classical music on at least one of these three media.

However, television was the predominant medium for the other five art forms, moreso for theatre and ballet than for opera; for opera, the media usage figures were TV (12%), radio (7%) and recordings (8%), with a total of 18% hearing opera on at least one of these three media. For musical show tunes, the figures were 20% for television and 37% for all three media.

3) Does the extent and nature of arts participation vary with geographic region and with community type and size? Two major geographical factors were examined in SPA '82: whether the respondent lived in a generally urban, suburban or rural area and whether that location was in the Northeast, North Central, West or South region of the country. (Census Bureau regulations on respondent confidentiality severely restricted the extent of geographic analysis that could be performed on the data.)

Arts Participation Index: In order to examine these (and other) analytic questions in more detail, a simple index of arts participation was constructed for each respondent. On this index, each respondent was given one point for each separate type of arts performance attended, or if they had read a novel, short story, etc. Thus, a person who attended opera and ballet performances was given a score of two; a person who atttended opera, ballet, and classical music concerts and read a novel, short story, poem or play was given a score of four.

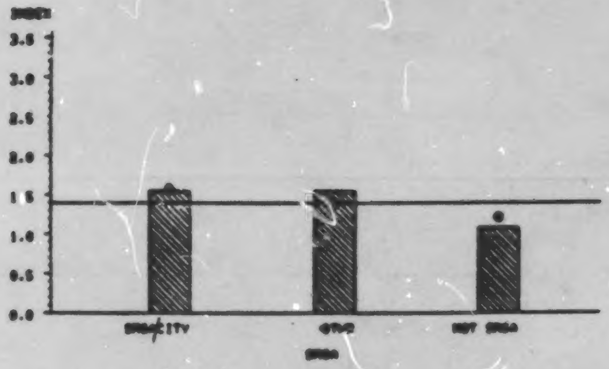
Thus, those 65% of respondents who had participated in at least one arts event in the previous year received scores of 1 through 8 depending on the number of separate events they attended. The remaining 35% of non-attenders received a score of zero (0) on the index.

The average overall score on the index was 1.39, as indicated by the horizontal line in Figure 1. Figure 1 shows the differences on the index first by SMSA and then by region. The shaded bars show straightforward unadjusted differences. The dots show

Figure 1

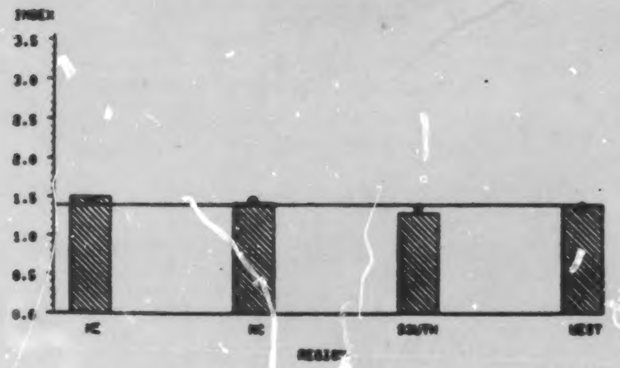
ARTS PARTICIPATION BY URBANICITY

* ADJUSTED



ARTS PARTICIPATION BY REGION

* ADJUSTED



these same differences after adjustment for the ten main factors we related to arts participation; these include age, education, income, race, occupation, family status and work hours.

SMSA Areas: Residents of central cities were more likely than average to participate in the arts, reporting about half again as much arts participation on the index as people who lived in more rural (non-SMSA) areas. However, residents of more suburban locations in metropolitan areas reported about as high a participation level as those in the central cities; this again was probably in large part because of the greater presence of more educated and younger adults living in the suburbs.

After control for these and other factors that distinguish urban, surban and rural respondents, the participation levels for these (mainly) suburban respondents was reduced to about average for the entire sample. However, the participaion rate for rural respondents rose significantly. After adjustment, then, rural participation rates were only about 25% lower than for residents of central cities, and not the 50% lower prior to adjustment.

This controlled analysis thus suggests that the greater access to arts performances for the city residents may be a factor in their greater participation. However, surburban residents do not participate more than average once other factors are taken into account.

Urban-rural differences were proportionately greater for ballet and opera than for attending classical music, which was more similar across urban, surburban and rural residents.

Region: Residents of Northeast region were higher on the index of arts participation than residents in the Northcentral or Western regions. Lowest participation is reported in the South, at about a 20% lower rate than in the Northeast.

These regional differences again reflect differences in education, age, race, etc. across regions. Once these regional differences in background factors are taken into account, these regional differences virtually disappear. The Northeast remains the most active region, but less than 1% higher than among residents of the Northcentral region and less than 7% higher than for the West and South.

A more detailed analysis of locational factors divided the country into the 24 separate areas by region and by specific large cities in each region. As expected, people living in the larger cities--New York, San Francisco, Washington-Baltimore, Boston and Chicago--had the highest proportions of active arts participants; relatively high participation levels were also reported in the smaller cities in the Western states as well.

Once again, after controls for demographic differences across these locations, only the much higher figures for New York City and for smaller cities in the West remain. While specific areas that were high on particular arts forms are discussed in a later section, it can be noted here that New York City residents (but not its suburban residents) were substantially above average in attendance for most forms of arts events -- with the exceptions of jazz and classical music concerts.

After adjustment, highest attendance at classical music performances was reported in smaller Western cities, while highest attendance at jazz performances was reported by Detroit area residents. After the other factors were taken into account, participation scores for the other cities noted above were considerably reduced. (It should be noted that these analyses were limited by small sample sizes, involving less than 300 people in some areas.)

4) What is the relationship between an individual's social, economic and demographic charateristics and the individual's participation in the arts? The major predictors of virtually all forms of arts participation are those related to the respondent's socio-economic background, in terms of education, occupation and income.

As shown in the shaded bars of Figure 2, scores on the participation index (described under Policy Question 3) are related consistently to all three factors. The progression of increases tends to be slightly sharper for education than for occupation or income, but it is clear that each socio-economic factor is associated with higher attendance or participation for all art forms.

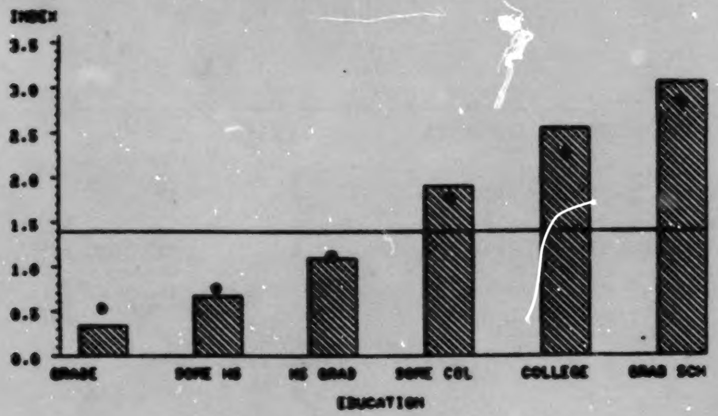
However, these three socio-economic background measures are highly related to one other. People with more years of education are more likely to be employed in jobs with professional and managerial responsibilities, which in turn are more likely to provide them with higher incomes. The progressively higher shaded bars in Figure 2 could, then, either be independent of one another--or could be dependent on the prominence of education, of income or of occupational background on the other two factors.

The dots in Figure 2 show the results of a multiple regression program which examines that issue statistically. They show that education emerges as the main independent predictor of the three. Both income and occupation decline notably as independent predictors once education is taken into account. This statistical analysis suggests that the differences in attendance levels by income and occupation can be linked to the higher levels of income and occupation of people with more years of formal education. In

Figure 2: Relating of Arts Participation to Factors
(Before MCA adjustment figures shown by shaded bars;
after MCA adjustment by dots)

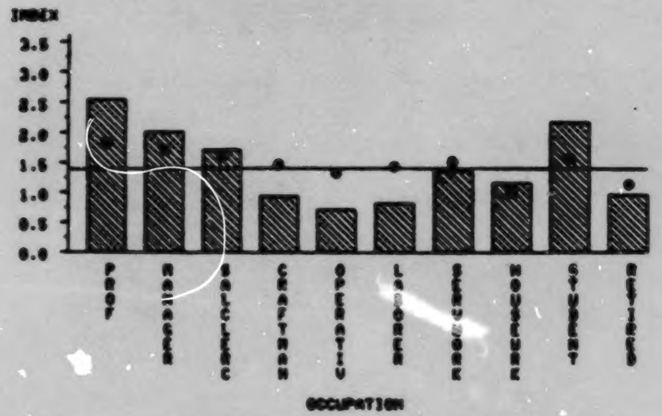
ARTS PARTICIPATION BY EDUCATION

• ADJUSTED



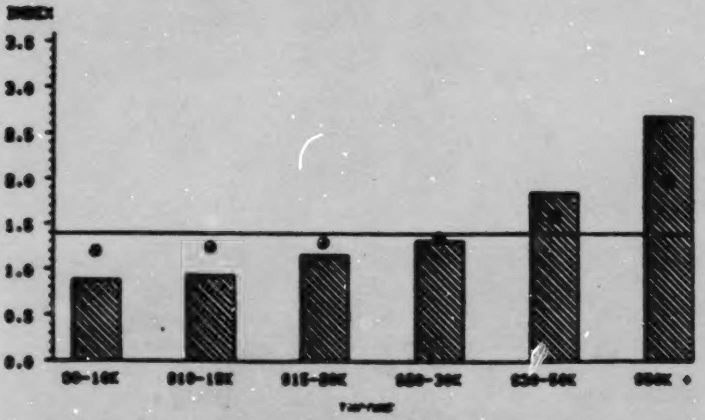
ARTS PARTICIPATION BY OCCUPATION

• ADJUSTED



ARTS PARTICIPATION BY INCOME

• ADJUSTED



other words, it is not their higher income per se that explains why affluent people attend more arts performances; according to this analysis, it is generally because more affluent people have more years of education.

The same pattern is found for occupational differences. However, there are important occupational differences within the occupational categories of Figure 2 that are maintained after MCA control. For example, respondents in more "people-oriented" jobs are more likely to be arts participants than those in "data-oriented" or "thing-oriented" jobs. In the case of professional occupations, then, employees in technical and engineering fields are less likely to participate in the arts than are teachers, lawyers or people who work in the social sciences and humanities.

The adjusted differences (shown by the dots in Figure 2) it will be remembered, have also been adjusted for other background factors related to the person's age, sex and race and to the person's family and work situation. These are the factors examined under the next policy question.

5) What effect does family background have on participation in the arts? Arts participation is usually thought to be influenced by family and household characteristics. Three major variables that come to mind in this regard are whether the person is married or not, has children or not or is employed in a job with longer work hours. These variables are examined in Figure 3, both before adjustment (shaded bars) and after adjustment (dots) for other factors.

Marital status: As shown in Figure 3, never married and divorced individuals report the most active arts participation on the index. Widowed and separated individuals are least active, at a rate of about 40% below that of the divorced or never married. Married people are only slightly below average in participation.

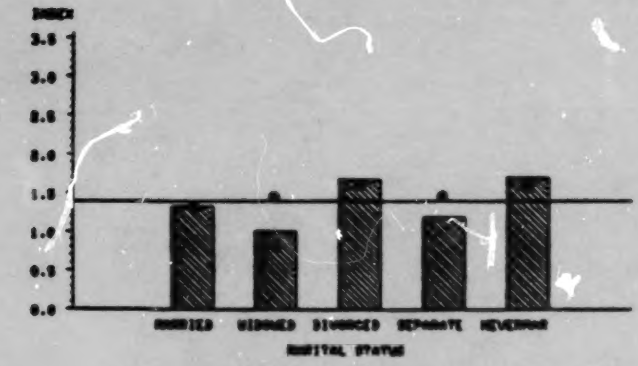
However, marital status categories are strongly related to other factors, particularly age. After control for those factors, few of these differences by marital status are maintained. Married people remain slightly below average in participation, but less than 10% below the average for the four unmarried groups. Marital status per se, then, shows little effect on participation.

Children: Having younger and more children in the household is associated with less arts participation as expected. But the differences are not pronounced. Presence of children under the age of 6 is a more important factor than the number of children, but even people with 2 or more children under 6 years of age report only about 20% less participation on the index than those with no children. These differences tend to hold up after sta-

Figure 3 Arts Participation by Family And Work Constraints

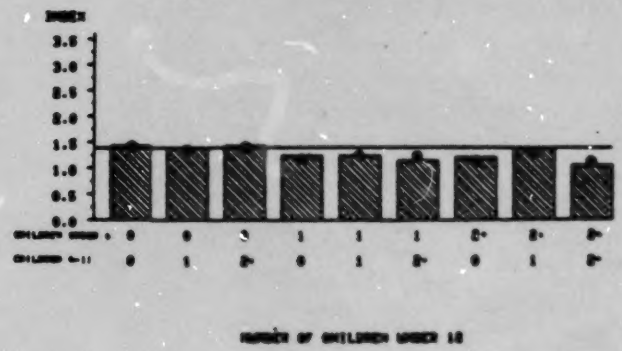
ARTS PARTICIPATION BY MARITAL STATUS

* ADJUSTED



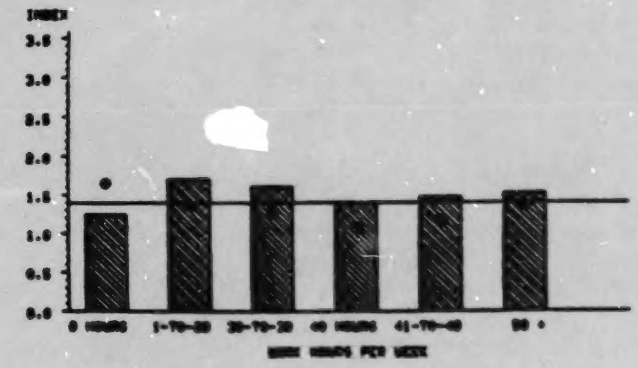
ARTS PARTICIPATION BY CHILDREN IN HOUSEHOLD

* ADJUSTED



ARTS PARTICIPATION BY WORK HOURS

* ADJUSTED



tistical control and lead to the conclusion that presence of younger children in a household does have some inhibiting influence on arts attendance, but not as large an influence as might be expected.

Work hours: In general, it can be seen that people who report longer work hours do report much less arts participation. For example, people working over 50 hours per week actually attend more arts events than people who do not work at all. This difference is, of course, highly related to age and education--since so many elderly people (who are also less educated) do not work; unemployed people also have less formal education.

Once these factors are controlled, people who do not work emerge as more active arts participants. However, people with longest working hours are still very close to average in their arts participation.

In general, then, none of these family and household factors is strongly related to arts participation. This suggests that if people are interested or involved in the arts, they will find some way to fit it into their schedule.

Other major demographic factors that are more related to arts participation include gender, age and race. Difference in arts participation patterns by these factors, as shown in Figure 4, indicate that higher arts participation is associated with being female, being middle-aged and being white . However, since each of these factors is affected by other factors (especially again by differences in the person's level of education), their effect also needs to be examined in the context of these other factors.

Gender: Women report about 25% more participation on the arts participation index than do men. As the data in Figure 4 indicate, this figure increases slightly after other factors are taken into account. In particular, it would appear that once one takes into account their differing education and occupational backgrounds, women participate even more than men of equivalent background.

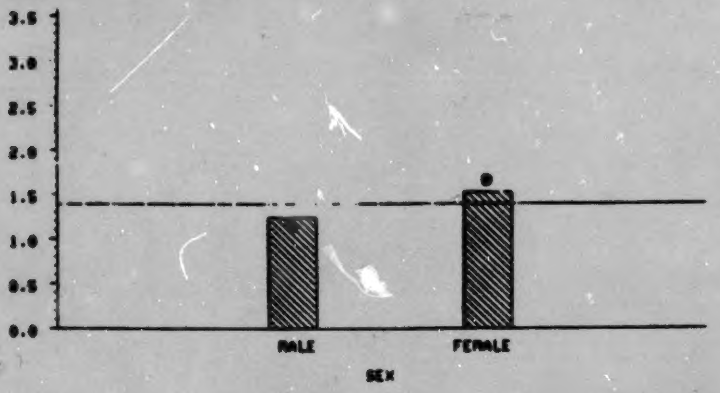
More detailed analysis also reveals that women who are unmarried are particularly more likely to attend arts events -- both in relation to unmarried men and in relation to married women.

Age: In general, reported participation is highest among middle-aged people and lowest among older people; participation by 18-24 year olds is slightly lower than for middle-aged groups. These unadjusted figures indicate that attendance begins to decline at age 45, and drops to two-thirds of its peak level among 65-74 year olds and to half of that level past age 75.

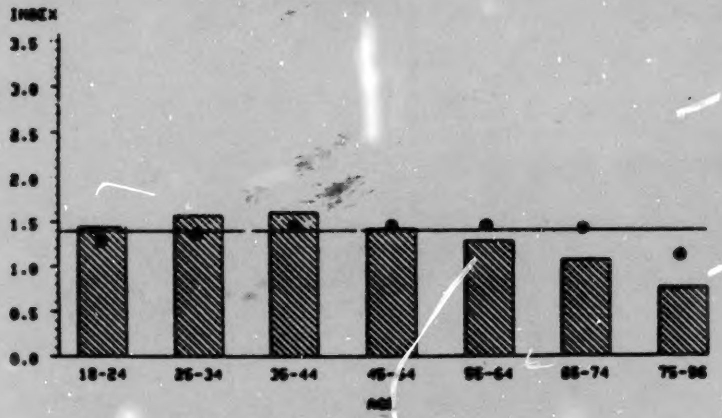
The adjusted figures tell a somewhat different story. They indicate fairly constant levels of attendance for all age groups

Figure 4 Arts Participation by Gender, Age And Race

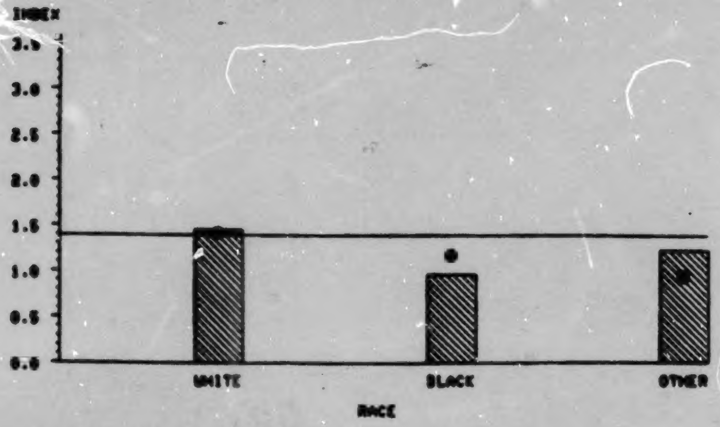
MULTIPLE ARTS PARTICIPATION BY GENDER
* ADJUSTED



MULTIPLE ARTS PARTICIPATION BY AGE
* ADJUSTED



MULTIPLE ARTS PARTICIPATION BY RACE
* ADJUSTED



up to age 75, including those aged 65-74. Attendance among even this most elderly group (aged 75+) drops to only about 20% below average, once one takes into account their education, occupation, etc. backgrounds.

Race: Whites report half again as much participation as blacks on the arts participation index, and 20% more than other racial groups. However, this picture is changed somewhat after adjustment. Taking their different educational levels, rural locations, etc. into account, black participation is lower, but only about 20% lower on the index. The rate for other racial groups (mainly Asian) is over 50% less than that for whites, once other factors are controlled.

The analyses also revealed that a person's early family background, as well as their current family background, has an effect on arts participation. These early background factors include the educational background of one's parents, parental arts-related behavior and lessons or classes related to the arts. These factors are examined under Policy Question 10 below.

6) Are there patterns of non-arts activities which are associated with arts activities? Among the potential barriers to arts participation are the other activities that can compete for a persons's leisure time. A series of 14 such leisure activity or life-style questions were included in SPA '82; they dealt with such general leisure activities as sports or doing home repairs.

It can be seen in Table 3 that far larger proportions of the sample reported engaging in most of these general activities than was the case for the core arts questions. For example, 84% reported reading any book or magazine in the previous 12 months, 65% playing cards or other games, 63% going to the movies, 60% gardening and 60% doing repairs and home improvements. Responses to these questions, therefore, indicate a considerable amount of leisure activity unrelated to the arts in the public which could be seen to compete with the arts for a person's leisure time.

Responses to this set of leisure activities were used to construct an overall index of leisure participation. One point was given for each separate activity in which the respondent engaged. In the case of the 14 general leisure activities, respondents averaged 6.6 activities, with 5% listing none, 18% one to three, 33% four to seven, 37% eight to eleven and 7% twelve or more.

As shown in Table 4, rather than interfering with arts participation, attendance at arts performances rose steadily for people who reported more leisure time activities. In each case, the proportions participating in an arts activity at least doubles from the least active groups to the most active groups, and are up to 20 times higher among the most active group as for the least

Table 3: Proportions Participating in 14 General Leisure Activities (in Prior 12 Months)

Read books or magazines	84%
Play card games, board games, etc.	65%
Go out to movies	63%
Work with indoor plants or any gardening	60%
Make repairs or improvements to home/auto	60%
Jog, lift weights, walk, exercise program	51%
Go to amusement park, theme park, etc.	49%
Go to sports event	48%
Participate in sports activity; softball, etc.	39%
Camping, biking, canoeing, etc.	36%
Visit zoo, arboretum or botanical garden	32%
Prepare special gourmet meals for pleasure	29%
Do volunteer or charity work	28%
Work on stamp, coin, etc. collection	16%

active group.

Again, these ratios decrease somewhat after control for other factors, particularly for education and age--which are major predictors of participation in general leisure activities as well as arts activities.

At an individual activity level, all 14 activities were associated with more arts attendance. The four general recreational activities that were somewhat more closely associated with attendance at arts performances were reading books and magazines, attending movies, visiting zoos, arboretums, etc. and preparing gourmet meals.

Movie-going was particularly strongly related to attending jazz, musical, play and ballet performances; volunteer work to attending operas and musicals; and preparing gourmet meals to ballet attendance. In general, however, there did not seem enough individual variation in the pattern of correlations among these general leisure activities to suggest any more specific "life-style" factors (such as at-home vs. away-from-home activities) that predicted higher arts participation. The simple more-more principle provides a more appropriate description of the relation between arts participation and leisure activities.

Table 4: Proportion Attending Live Arts Performance by Number of General Leisure Activities

	Attended Live Performance of						
Number of General Leisure Activities	Jazz	Classical	Opera	Musical	Stage Play	Ballet	Art Gallery
None	1%*	0%	0%	0%	0%	0%	0%
1-4	3%	3	1	3	3	0	4
5-7	6%	8	2	17	9	2	17
8-10	13%	14	3	25	15	3	31
11-14	25%	26	3	35	24	10	49

*Entry indicates 1% of those respondents reporting no leisure activities attended a live jazz performance (vs. 25% attendance rate among those reporting 11-14 leisure activities).

7) What are the extent and nature of unsatisfied demand for arts individually and as a whole? Respondents in SPA '82 were asked whether they would prefer to attend more arts events than they had in the previous 12 months. The question was asked for each of the seven core arts activities, and it was asked of respondents whether they had attended or not attended such an event in the previous year.

As shown in Table 5, the proportion of respondents wanting to attend more events was larger than the actual proportion of attenders for each type of arts event. For example, in contrast to the 10% who had attended live jazz performances, more than 18% of respondents wanted to go to (more) jazz performances. It would appear that latent demand for jazz, as for other art forms, extends far beyond what people now attend. This latent demand for ballet performances is particularly high in relation to current levels. In contrast to the fewer than 5% of respondents who attended a ballet performance in the previous year, for example, almost 12% of the sample said they wanted to attend.

Overall, about a third of the sample (32%) seemed definitely not interested in the arts: they had neither attended any of the seven types of arts events nor said they wanted to attend any such arts event. Nearly the same proportion of the sample (29%) said they wanted to attend, but did not attend any of the arts events. The remainder of the sample were arts attenders--the 34% who had attended and wanted to attend more, and that 5% who had attended but were not interested in attending more.

In all arts forms, it can be seen at the right hand side of

Table 5: Proportion Saying They Want to Attend More Arts Events

Arts Activity	Want to Attend More	Attended Last Year (From Table 1)	Attenders Want to Attend More	Non-Attenders Want to Attend More
Jazz	18%	(10%)	55%	14%
Classical Music	18%	(13%)	53%	14%
Opera	7%	(3%)	45%	7%
Musicals/Operetta	33%	(19%)	70%	25%
Non-Musical Stage Play	25%	(12%)	55%	20%
Ballet	12%	(4%)	54%	10%
Art Gallery/Museum	31%	(22%)	58%	23%

Table 5 that proportionally higher numbers of current attenders want to attend more arts events than do current non-attenders. In fact, except for opera, majorities of those who currently attend want to attend more; in comparison no more than a quarter of those who did not attend want to attend more for any activity. This is of course a further example of "the more, the more" phenomenon.

At the same time, greater absolute numbers of current non-attenders want to attend than not attend. Put in other words, arts planners have a greater per person receptivity to develop an expanded audience for any art form by contacting attenders; but, there are greater numbers of non-attenders who want to attend (although again less than a quarter of those people say they want to attend). This may present something of a parodox about different marketing strategies for the two groups.

The two sets of questions (attendance and preference for more attendance) generate four types of individuals for each art form:

1) Those who had attended and did not want to attend more
2) Those who had attended and did want to attend more
3) Those who had not attended but did want to attend (more)
4) Those who had not attended and did not want to attend (more)

These groupings can be recombined to show a further paradox regarding which arts forms have greatest potential for increased audience. In terms of absolute numbers of people who may want to attend more, these figures show the following unmet audience potentials:

Musicals/operettas	25 million people (want to attend more)
Non-musical plays	21 million people
Art galleries	15 million people
Jazz	15 million people
Ballet	14 million people

Classical	11 million people
Opera	9 million people

These numbers are obtained by subtracting the estimated numbers who say they want to attend (more) from the estimated numbers who currently attend.

However, summing these figures as *ratios* of the numbers who *want* to attend divided by the numbers of those who *do attend*, creates virtually the opposite pattern:

Opera	3.5 (times as many want to attend than do attend)
Ballet	3.4
Jazz	3.9
Classical	3.8
Musicals	2.8
Plays	2.8
Museums	2.5

Ballet and opera, then, show the greatest potential in terms of proportionate growth. But these numbers are also largely a function of the present lower levels of attendance for ballet and opera. At the same time, this higher potential for ballet and opera is reflected in several other proportions: of those who want to attend in relation to those who do attend, of those who want to attend among those who do not attend in relation to those who attend who want to attend more and of those who want to attend in relation to all non-attenders.

8) What reasons do those who say they would like to attend arts activities more often give for not doing so? Respondents who said they wanted to attend more arts events also gave reasons why they did not attend more. The pattern of response to this "arts barrier" question results were remarkably similar -- both across attendees and non-attendees and across the seven arts forms. The major barrier respondents perceived for not attending more was a personal one--described as "lack of time"; such responses stand in contrast to findings in Figure 3 regarding the factors that mainly restrict the free time people they seem to have available.

The second and third most important barriers were cost factors and accessability factors. The latter factor was a particularly important reason for not attending arts museums more often. Other barriers mentioned with some frequency for all arts activities were the performances being too far away, problems finding someone to go with and lack of sufficient personal motivation.

9) How is amateur participation related to attendance?

As noted in Table 1 and the introductory text, about a tenth of SPA respondents said they had made photographs as an artistic activity, or had done painting or sculpting or had done creative writing. Moreover, more than a third said they had gone to an art or crafts fair or had visited an historic site. An index of such amateur and other arts-related leisure activities was constructed for 12 such questions in SPA '82, and the scores were arranged into the five categories in Table 6 from zero activities (17% of the sample) to 5 to 12 such activities (32% of the sample).

As noted in the introductory remarks in connection with the more-more principle, Table 6 shows scores on the arts participation index being considerably higher among respondents reporting more of these amateur or spectator arts activities. Respondents reporting 5 to 12 such activities were up to five times more likely to participate in the seven types of arts activities as was the rest of the sample.

Certain of these amateur and other arts activities were related to attendance at arts performances at a higher level than other activities. For example, respondents who did creative writing or created visual arts works were particularly more likely to attend jazz and ballet performances. Those who did "backstage" work at arts performances were particularly more likely to attend ballet and stage plays. Visiting science museums, historic sites and art/craft fairs was highly related to visiting art galleries and museums; they were also highly related to attending ballet and classical music performances.

Table 6: Proportion of Attenders of Live Arts Performance by Number of Cultural Activiti

Attended Live Performance of

Number of Cultural Activities	Jazz	Classical	Opera	Musicals	Stage Play	Ballet	Art Gallery
0	4%	3	1	8	4	0	7
1	10	11	2	18	11	3	20
2	10	15	3	25	15	4	30
3-4	20	21	3	28	20	6	44
5-12	30	35	5	48	30	18	68

In general, the more active, participatory arts-related activities (such as painting or creative writing) were more related to the arts particpation index than "spectator" activities (visiting science museums or historic sites). Nonetheless, the general more-more principle continues to be a most useful way of predicting general arts participation.

10) How does formal instruction and training in the arts and early exposure while growing up effect late participation? We have used the umbrella term "socialization" to describe the various ways in which people become exposed to the arts across the life cycle. The SPA '82 project examined socialization experiences at various other times in people's lives besides the previous year: whether through arts or lessons, through appreciation classes, or through parental example or encouragement.

The most common forms of arts socialization reported in the survey were through music lessons (47%) and parental encouragement of independent reading (67%). In addition, nearly a third of the sample (31%) reported having taken lessons in some craft (such as pottery or weaving) at some time in their life, and nearly a quarter (24%) reported taking a class in one of the visual arts; one in five (20%) reported having taken art appreciation classes. Also, close to a third of respondents said their parents had taken them to art museums or to live classical arts performances, and almost a third said their parents at least occasionally listened to classical music or opera when they (the respondents) were growing up. In all, only 17% of the sample said they had experienced none of these forms of arts socialization.

There are some distinct age differences concerning when when these socialization experiences occurred for this sample of adults. Almost half of those who took music lessons (and about a quarter of the entire sample) reported taking music lessons before they were 12 years old; this pattern of early socialization was also the case for almost three-quarters of the respondents who had

Table 7: Proportion Attending Live Arts Performance by Socialization Experiences or Parental Influence

Socialization Experience	Jazz	Classical	Opera	Musicals	Stage Play	Ballet	Art Gallery
None	4	4	1	7	5	1	8
One or more	13	19	4	25	20	7	36

* Respondents who reported having taken appropriate arts-related class or lessons, or having parents who encouraged arts participation

taken ballet lessons. Most of those who took lessons in the visual and other arts forms (acting, writing, crafts), however, took their first lessons when they were between the ages of 12 and 17; 31% of all respondents also reported taking music lessons during this period in their lives.

The peak years for art and music appreciation classes, however, were "the college years" between the ages of 18 and 24. At least one respondent in ten reported having taken such a class at that point in their lives, and roughly one in ten also reported taking lessons in music, visual arts media, creative writing and crafts activities. Except for the slight increase in crafts activities, reported participation levels in all classes and lessons dropped dramatically past age 25. It would appear that most arts learning and training experiences are largely confined to the periods in their lives when people are under the age of 25.

Consistent once again with the more-more principle, people who report more socialization experience also report higher attendance at related arts events. As reflected in Table 7, respondents who had taken music lessons, who had music appreciation classes, or who had parents who listened to classical music were about three times more likely to report attending a live jazz performance or a live classical music performance as were respondents who reported not having grown up with such experiences; they were also more likely to attend operas and musical theater. The sharpest differences are found for ballet: those who report having had ballet lessons were up to 7 times more likely to attend a ballet perfomance as those who had not.

People who had taken both music lessons and music appreciation classes are more likely to attend live classical music performances than are people who have taken only one or the other.

But while it is clear that prior socialization experience relates to present attendance at related arts events, Table 7 may provide a misleading picture of the nature and extent of that relationship. First, it may be the case that people who attend current arts performances are better able to recall their socialization experiences than those who do not attend; they may also be more tempted to exaggerate their early arts exposure. Secondly, both socialization and attendance are related to common demographic factors, like education and age.

When these factors are controlled statistically, the differences between socialized respondents and non-socialized respondents diminish considerably—generally to about half the differentials shown in Table 7. Thus, like exposure to the mass media, people reporting various arts socialization experiences (usually in their teen-aged years) appear to be half again as likely to report attending a related arts event as those who have not had such socialization experiences--other factors being equal.

SPECIFIC ARTS AUDIENCES:

Tables 8 and 9 provide a more detailed examination of the audience composition for specific live performing arts (such as jazz or classical music performances) than the index scores analyzed above. These detailed data are shown in Table 8 for the unadjusted data and in Table 9 for the attendance figures after adjustment for education and other demographic factors.

On the whole, the pattern of relationships in Tables 8 and 9 generally repeat the major differences already discussed in the introductory remarks and Policy Questions 4 and 5. These include the predominance of education as a predictor, the role education plays in reducing or explaining the differences in other background factors, the lack of large differences by most background factors, etc.

Thus, Tables 8 and 9 focus the SPA results on a specific arts activity basis. They also highlight certain exceptions to these general patterns and call attention to some important differences in activity patterns, such as:

1) The strong age effect for attending jazz performances, which younger people are far more likely to attend. To some extent, this cancels out the generally lower than average attendance rates for these younger age groups for most of the other six arts forms.

2) The larger differences between women and men in attending ballet and reading literature than for other arts activities.

3) The higher attendance rates at jazz performances by blacks.

4) The consistent jump in income differences for the $50,000 and over group across activities.

Several other similiar exceptions can be found in Tables 8 and 9.

We next turn to a closer examination of these attendance activities in the context of other related questions to each art form in the survey.

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Table 8 . Participation Rates for Various Arts Performances by Background Factors

	Jazz	Classical Music	Opera	Musicals	Plays	Ballet	Art Museums	Reading
Grand mean	10%	13%	3%	19%	12%	4%	22%	56%
Age:								
18–24	18	11	2	17	11	4	23	60
25–34	15	13	3	20	12	4	27	62
35–44	8	16	4	23	15	6	27	60
45–54	7	15	4	21	13	4	22	55
55–64	5	13	4	19	12	4	19	53
65–74	2	12	3	14	10	3	15	47
75–96	[illegible]	7	2	9	5	2	8	41
Sex:								
Male	20	11	3	17	11	3	21	49
Female	9	15	3	21	13	6	23	63
Race:								
White	9	14	3	20	13	5	23	58
Black	15	7	1	10	6	2	13	42
Other	9	10	3	13	8	4	28	50
Education:								
Grade school	1	2	1	4	2	0	3	21
Some high school	4	4	1	6	4	1	[illegible]	39
High school graduate	7	8	2	13	7	2	16	54
Some college	15	18	4	26	16	3	33	73
College graduate	19	29	7	37	26	10	44	80
Graduate school	20	39	10	[illegible]	36	13	46	85
Income:								
Under $10,000	8	8	1	9	7	2	12	40
$10,000 - $14,999	7	8	2	9	5	2	13	45
$15,000 - $19,999	8	10	2	13	8	3	17	53
$20,000 - $29,999	9	10	2	15	9	4	20	54
$30,000 - $49,999	9	12	2	20	12	4	22	59
$50,000 and over	13	20	5	31	20	7	33	69
Not ascertained	9	12	5	19	11	5	22	57
SMSA:								
1 Cent City of SMSA	13	15	4	21	14	6	26	57
2 SMSA, Not Cent City	11	14	4	22	13	5	25	60
3 Not in SMSA	6	10	1	12	9	2	16	52
Regional								
1 Northeast	9	14	4	23	14	5	22	59
2 Northcentral	10	14	3	18	12	4	21	59
3 South	9	10	3	14	9	4	19	49
4 West	12	16	4	23	14	5	29	64
Marital Status								
1 Married	7	12	3	19	11	4	21	56
2 Widowed	2	11	3	13	8	3	12	48
3 Divorced	15	18	4	21	15	6	27	61
4 Separated	13	10	2	15	10	3	18	47
5 Never married	19	15	4	21	15	6	28	62
Work Hours								
1 None	7	12	3	16	10	4	19	55
2 1 to 29	12	16	3	23	15	5	29	65
3 30 to 39	12	15	4	21	13	6	26	62
4 40 hrs	11	13	3	19	12	4	22	55
5 41 to 49	12	14	4	20	11	4	24	57
6 50 or more	12	15	4	23	14	5	25	58
Work								
1 Professional	18	30	8	37	27	10	45	79
2 Managerial	14	19	6	32	20	7	36	66
3 Sales,clerical	12	15	3	25	15	6	26	68
4 Craftsmen	8	7	1	12	6	2	14	42
5 Operatives	7	4	1	7	4	1	10	38
6 Laborers	8	6	1	7	5	2	13	40
7 Service workers	10	11	3	17	9	4	20	60
8 Not working	10	12	3	16	11	4	21	54
9 Keeping house	5	11	2	15	8	3	16	54
10 Student	25	18	4	24	22	7	36	79
11 Retired	2	9	3	14	9	2	13	44
Number of Children								
0 No children	10	14	4	19	13	4	23	57
1 One 6–11 yrs	7	12	3	20	11	4	23	58
2 Two or & 6–11	8	15	3	18	12	7	21	58
3 One under 6	10	9	1	16	10	3	19	55
4 One 6–11, 1 under 6	6	10	1	15	8	5	23	56
5 2 or & 6–11, 1 under 6	8	10	2	10	7	2	19	56
6 2 or & under 6	9	9	1	16	8	3	18	56
7 1 6–11, 2 or & under 6	9	14	2	20	15	5	19	56
8 2 & 6–11, 2 & under 6	4	10	3	10	6	2	24	45

THE JAZZ AUDIENCE

The individual items in each question series tell us a good deal about the audience for jazz music in America. More than a quarter of the public (26%) say they like jazz music, and 3% claim it to be their favorite. Nearly one American in ten say they went to a live jazz performance. Moreover, 18% saw a jazz music performance on television and another 13% listened to jazz on radio or on records (but didn't see a TV performance). This meant that more people (30%) attended to a jazz performance on the media than who said they liked jazz music (26%).

There is a sizeable unmet demand for jazz music. Some 18% of respondents overall, and 56% of jazz music attendees, say they would like to attend more jazz performances. As for the other core arts questions, lack of time, money and access are (in that order) the main reasons why both attendees and non-attendees say they do not attend more jazz performances.

Questions about affinity towards jazz music share some common audience characteristics. People who are attracted to jazz are disproportionately younger and better educated. They are also more likely to be black and to be male. They are more likely to live in urban areas of the country and in the North Central and West regions of the country; although the sample sizes are small, it would appear that they are more likely to be found in Detroit and San Francisco areas and in smaller Western cities.

As was the case with the other core arts questions, attending jazz performances was related to media exposure to jazz music, to socialization experiences (with classical music), and to participation in other recreational activities (particularly movie attendance and creative writing). Attending jazz performances is seven times higher among those who said they liked jazz than among those who did not say they liked jazz music, and was also related to liking show tunes, soul/blues music and rock music. In terms of preference among other types of music (independent of attendance), liking jazz music was positively related to liking all forms of music, except country/western; it was most strongly related to liking soul music and rock music.

A cumulative picture of the jazz audience would start with those 1% of respondents who performed such music in public. The next tier would show additional 9% who attended a live jazz performance, but who do not play in a public performance. The third tier is comprised of that 12% who neither played nor attended, but who would like to have attended. The fourth tier is composed of that 13% who neither played, attended, nor wanted to attend more, but who attended to a jazz performance via one of the mass media. Finally, the top tier would show that 4% who do not share any of these behavioral affinities to jazz, but who still say they like jazz music The remaining 61% share none of these affinities toward jazz music.

THE CLASSICAL MUSIC AUDIENCE

The individual items in each question series also tell us a good deal about the American audience for classical music. Like jazz, more than a quarter of the public (27%) say they like classical music; but 7% claim classical music to be their favorite (vs. only 3% for jazz). Some 13% of Americans say they went to a live classical music performance. Moreover, 25% saw a classical music performance on television and another 13% listened to classical music on radio or on records (but didn't see a TV performance). Like jazz, this meant that more people (38%) attended to a classical music performance on the media than who said they liked classical music (27%).

There is also a sizeable unmet demand for classical music. Some 19% of respondents overall, and 53% of classical music attendees, say they would like to attend more classical music performances. As with the other core arts questions, lack of time, money and access are (in that order) the main reasons why both attendees and non-attendees say they do not attend more classical music performances.

Questions about affinity towards classical music also share some common audience characteristics. People who are attracted to classical music are disproportionately better educated and middle aged. They are slightly more likely to be white and to be female. They are more likely to live in urban and suburban areas of the country and in the Western regions of the country; although the sample sizes are small, it would appear that they are more likely to be found in smaller Western cities.

As was the case with the other core arts questions, attending classical music performances was related to media exposure to classical music, to socialization experiences (with classical music), and to participation in other recreational activities (particularly visiting science museums and doing volunteer work). Attending classical music performances is six times higher among those who said they liked classical music than among those who did not say they liked classical music, it was also related to liking big band, show tunes and opera music. In terms of preference among other types of music (independent of attendance), liking classical music was positively related to liking all forms of music, except country/western; it was most strongly related to liking opera music and show tunes.

A cumulative picture of the classical music audience would first show that 1% of respondents who performed such music in public. The next tier would show that additional 12% who only attended a live classical music performance (but who do not play). The third tier is comprised of that additional 11% who neither play or attend, but who would like to attend. The fourth tier is composed of that 17% who neither play, attend, nor want to attend more, but who attended to a classical music performance via the mass media. Finally, the top tier would show that 4% who do not share any of these behavioral affinities to classical music, but who still say they like classical music. The remaining 56% of the sample shows none of these affinities toward classical music.

THE OPERA AUDIENCE

A tenth of the public (10%) say they like opera music, and 1% claim it to be their favorite. Just over 3% say they went to a live opera performance and 12% saw an opera performance on television; and another 6% listened to opera on radio or on records (but didn't see a TV performance). Again, more people attended to an opera performance on the media (18%) than who said they liked opera music (12%).

There is a sizeable unmet demand for opera music -- particularly in relation to its present audience size. Some 8% of respondents overall, and 45% of opera attendees, say they would like to attend more opera performances. As with the other core arts questions, lack of time, money and access are (in that order) the main reasons why both attendees and non-attendees say they do not attend more opera performances.

Questions about affinity towards opera share some common audience characteristics. People who are attracted to opera are disproportionately better educated and middle aged. They are also slightly more likely to be white and to be female. They are slightly more likely to live in urban and suburban areas of the country and in the Northeastern and Western regions of the country; although the sample sizes are small, it would appear that they are more likely to be found in the New York and San Francisco areas and in the larger cities in Texas (e.g. Houston, Dallas).

As was the case with the other core arts questions, attending opera performances was related to media exposure to opera music, to socialization experiences (with classical music), and to participation in other recreational activities (particularly visiting science museums and poetry readings). Attending opera performances is fourteen times higher among those who said they liked opera than those who did not say they liked opera music, and was also related to liking show tunes and classical music. In terms of preference among other types of music (independent of attendance), liking opera music was positively related to liking all forms of music, except country/western; it was most strongly related to liking show tunes and classical music.

A cumulative picture of the opera audience would first show that The next tier would show that additional 3% who only attended a live opera performance (but who do not perform). The third tier is comprised of that 7% who neither perform nor attend, but who would like to attend. The fourth tier is composed of that 11% who neither perform, attend, nor want to attend more, but who attended to an opera performance via the mass media. Finally, the top tier shows that 1% who do not share any of these behavioral affinities to opera, but who still say they like opera. The remaining 78% shows none of these affinities toward opera music.

THE AUDIENCE FOR MUSICAL THEATRE (BROADWAY MUSICALS,SHOW TUNES AND OPERETTAS)

Although more respondents reported attending a musical stage play or operetta (19%) in the previous year than attended either jazz, classical or opera performances, less than a quarter of the public (23%) said they liked show tunes, and only 2% claimed them to be their favorite type of music. Some 20% saw a stage musical performance on television and another 17% listened to show tunes on radio or on records (but didn't see a TV performance). This meant that only a few more people attended to a Broadway-type musical performance (37%) on the media than who reported going to a live performance (19%).

There is a sizeable unmet demand for musicals and show tune music. Some 32% of respondents overall, and 70% of those who attended musical performances, say they would like to attend more performances of musicals. As with the other core arts questions, lack of time, money and access are (in that order) the main reasons why both attendees and non-attendees say they do not attend more performances of staged musicals.

Questions about affinity toward musicals and show tune music share some common audience characteristics. People who are attracted to show tune music are disproportionately better educated and younger middle aged. They are also more likely to be white and be female. They are more likely to live in urban and surburban areas of the country and in the Northeastern region of the country; although the sample sizes are small, it would appear that they are more likely to be found in the New York City, Philadelphia and Washington/Baltimore areas.

As was the case with the other core arts questions, attending performances of musicals/operettas was related to media exposure to musicals and show tune music, to socialization experiences (with theatre attendance), and to participation in other recreational activities (particularly movie attendance and visiting historical sites). Attending stage musical performaces is three times higher among respondents who said they liked show tunes than those who did not say they liked show tunes, and was also related to liking classical music, mood music, opera and folk music. In terms of preference among other types of music (independent of attendance), liking show tunes was positively related to liking all forms of music, including country/western; it was strongly related to liking opera, classical music, as well as big band, mood, barbershop and folk music.

A cumulative picture of the audience for musical theatre would first who that 1% of respondents who perform in a live public performance. The next tier would show that additional 18% who only attended a live musical theatre performance (but who do not perform). The third tier is comprised of that 20% who neither play nor attend, but who would like to attend. The fourth tier is composed of that 3% who neither perform, attend, nor want to attend more, but who attended performance of musical theatre via the mass media. Finally, the top tier would show that 3% who do not share any of these behavioral affinities to musical theatre, but who still say they like show tune music. The remaining 51% share none of these affinities toward musical theatre and show tunes.

THE AUDIENCE FOR (NON-MUSICAL) STAGE PLAYS

Nearly one respondent in eight said they went to a live non-musical play performance. Almost twice as many (26%) saw a performance of a stage play on television and another 1% listened to radio play performances.

In terms of the unmet demand for attending stage plays, a quarter of respondents overall, and 55% of stage play attendees, say they would like to attend more theatre performances. As with the other core arts questions, lack of time, money and access are (in that order) the main reasons why both attendees and non-attendees say they do not attend more performances of non-musical stage plays.

People who are attracted to stage plays are disproportionately better educated and younger to middle aged. They are also more likely to be white and to be female. They are more likely to live in urban and suburban areas of the country and in the Northeastern region of the country; although the sample sizes are small, it would appear that they are more likely to be found in the New York City and Washington-Baltimore areas.

As was the case with the other core arts questions, attending live stage play performances was related to media exposure to stage plays, to socialization experiences (with the theatre), and to participation in other recreational activities (particularly movie attendance, visiting historical areas and doing "backstage" work in the theatre). Attending stage play performances is much higher among those who said they liked all kinds of music, except country/western and religious music.

A cumulative picture of the (non-musical) theatre audience would first show that 1% who perform such music in public. The next tier would show that additional 11% who only attended a live play performance (but who do not perform). The third tier is comprised of that additional 18% who neither perform nor attend, but who would like to attend. The fourth tier would show that additional 12% who neither perform, attend, nor want to attend more (non-musical) stage plays, but who attended to a stage performance on TV or on the radio. The remaining 58% of the sample shares none of these affinities toward non-musical stage plays.

THE BALLET AUDIENCE

Just over 4% of respondents said they had gone to a live ballet performance in the previous year. Some 16% had seen a ballet performance on television, meaning that four times as many people had attended a ballet performance on TV than had attended a live ballet performance.

There is a sizeable unmet demand for ballet in relation to current attendance figures, with almost 12% of respondents overall, and 56% of ballet attendees, saying they would like to attend more ballet performances. As with the other core arts questions, lack of time, money and access were (in that order) the main reasons why both attendees and non-attendees said they did not attend more ballet performances.

These various questions about ballet share some common audience characteristics. People who are attracted to the ballet are disproportionately better educated and in the 35-44 age group. Ballet patrons are also far more likely to be white and to be female. They are more likely to live in urban and suburban areas of the country and in the Northeast and Western regions of the country; although the sample sizes are small, it would appear that they are more likely to be found in the New York City area, and to a lesser extent in the San Francisco and Washington-Baltimore areas.

As was the case with the other core arts questions, attending ballet performances was related to TV exposure, to socialization experiences (with theater and with music), and to participation in other recreational activities (particularly movie attendance, visiting art fairs and historic places, and "backstage" work at theatre and music performances). Attending ballet performances is considerably higher among those who said they like all types of music (except country/western music and hymns) and was especially related to liking show tunes, opera and classical music.

A cumulative picture of the ballet audience would start with that additional 4% who only attended a live ballet performance (but who do not perform). The third tier is comprised of that 9% who neither perform not attend, but who would like to attend. The fourth tier would show that additional 9% who neither perform, attend, nor want to attend more ballet, but who did see a ballet performance on television. The remaining 78% of the audience shares none of these affinities toward ballet.

ART GALLERIES AND MUSEUMS

More respondents (22%) reported going to an art gallery or art museum in the previous year than attending any of the preceding six types of performing arts events. Unlike most of the performing arts, this proportion of people attending art galleries and museums was almost as large a proportion as watched a program dealing with such visual arts works on television (23%).

Moreover, some 31% of the sample said they would like to attend art galleries and museums more often, and that figure rose to 58% among those who had attended. Nonetheless, this (31%) represents the smallest ratio of those wanting to attend to those who had attended (22%) of any of the seven core arts questions.

People who attend art galleries and museums are disporportionately better educated and young-to-middle aged. They are also more likey to be white than black, to live in urban and suburban areas and to live in the West. Although the sample sizes are small, they are more likely to be found in the Washington-Baltimore, Boston, San Francisco and New York City areas.

As with other core activity questions, attending arts galleries and museums was related to watching TV programs in the visual arts, to socialization experiences with the visual arts (e.g. taking art appreciation classes) and to participation in other recreational activities (particularly visiting science and history museums and sites). Visiting art galleries and museums was related to liking all forms of music (except again country/western music), but particularly to liking classical music and show tunes.

While no direct question on personal display of art works was asked to be comparable to the performaning arts questions, over 10% of respondents said they had done some painting, drawing, sculpting or printmaking acitivities in the previous year and 11% said they made photographs, movies or videotapes as an artistic activity.

READING

Over 56% of respondents reported reading some novel, short story, poetry or play in the previous 12 months. In response to a more focused narrow question on the readings of poetry, some 20% said they had either read or listened to a reading of poetry. In response to a much broader question, some 84% said they read any book or magazine in the previous year.

In general, readers of this type of literature were much more likely to be better educated and to be younger. They were also more likely to be white and to be female, and slightly more likely to live in suburban areas and in the Western part of the country. Although the sample sizes were small, respondents in the New York City and Boston areas and in smaller cities in the West reported most reading.

METHODOLOGY

Data Collection: Respondents in the survey were part of a larger continuously rotating panel of respondents who are interviewed every six months over a three year period. These individuals lived in households selected by the U.S. Census Bureau to be randomly representative of the total U.S. adult populationu 18 years of age and older. Census Bureau population counts were used to draw the sample in such a way that all individuals living in households in the United States had a known and equal chance of selection.

All individuals aged 18 and over in these selected households were eligible to be included in the survey. Less than 10% of all eligible individuals in these selected households could not be interviewed. The final data were weighted slightly to ensure that the final sample was completely representative of the 1982 U.S. population in terms of age, race and gender.

About three-quarters of these interviews were conducted face-to-face in the respondent's home, with the remainder being conducted by telephone for respondents who were not at home at the time of the interviewer's visit. No effective differences were generally found between these in-home and the telephone interviews. The SPA interview took about 5 minutes to complete for the first ten months of 1982 (i.e. January through October); they took about 20 minutes to complete for the longer interviews conducted in November and December, which included all the "non-core" questions in the survey.

The interview began with the survey's "core" questions, which referred to participation during the previous 12 months, which in the first January

Table A1: Monthly Schedule of Questions for 1982 Survey

1982 Month	Questions Demographics	Core Activities	Barriers	Socialization	Recreation, Life-Style	Music; Facilities	Cultural Participation	Mass Media Participation
January	X	X	X					
February	X	X		X				
March	X	X			X			
April	X	X				X		
May	X	X					X	
June	X	X						X
July	X	X	X					
August	X	X		X				
September	X	X			X			
October	X	X				X		
November	X	X	X	X	X	X	X	X
December	X	X	X	X	X	X	X	X
SURVEY MONTHS	12	12	4	4	4	4	3	3

1982 survey month then referred to participation during the 1981 calendar year; in the final month, December 1982, the previous 12 months referred to the period December 1981 through November 1982.

Data Analysis: The complete questionnaires were returned to the Census Bureau in Suitland, Maryland, where they were edited for final keying onto a computer tape. These coded survey answers were then merged with the coded data on each respondent's background (e.g. age, education, race) obtained in the panel part of the Census Bureau survey.

These background data were weighted to reflect U.S. population characteristics. Tabulated numbers of respondents giving each survey answer were then percentagized as a function of the 164+ million people age 18 and older living in the United States in 1982. If it was estimated, for example, that if 100 million (weighted) respondents gave a particular answer to a question, then the estimated percentage of the entire population having that characteristic was approximately 100/164 or 61%.

The same procedures were followed to estimate comparable percentages across subgroups of the population. If the (weighted) number of females in the population giving an answer was 55 million, and there are 84 million females in the population, then (55/84 =) 65% of females are estimated to have the characteristic; if 45 million of the 80 million males had the characteristic, then the comparable percentage was 56%. That indicates a nine percentage point higher incidence for females (65%) than for males (56%). Such a difference would be statistically significant at the 95% confidence level--indicating that this difference would occur purely by chance less than 1 out of 20 times.

Such percentage difference figures are reported throughout the report.

In order to simplify the number of such comparisons, several statisical short-cut procedures were employed: correlation coefficients, odds-ratios and probability estimates. The data were also subjected to factor analyses and cluster analyses to identify basic underlying dimensions of activity participation and preferences. These were used to construct indices of various characteristics: single numbers that index or summarize each respondent's overall attendance at arts performances or overall exposure to the arts through the mass media.

In addition, special tabulations were produced by a computer program called Multiple Classification Analysis (MCA). The advantage of MCA is that it can produce estimates of the participation of population subgroups that are "purified" or adjusted for the statistical effects of other factors. These adjusted figures are preferable to simple percentage differences, which can be misleading if they are largely a function of other variables that predict participation (like education or age).

APPENDIX A

Further Survey Documentation and Background on Survey Methodology

DATA COLLECTION

The Demographic Surveys Division of the Bureau of the Census has been conducting periodic surveys of households throughout the United States to inquire about personal experiences. Since July 1972, this national sample consists of a panel of 72,000 households visited twice a year for three years, with new units replacing expired ones at the end of that period. Interviewing takes place each month at approximately 10,000 households, of which about one-seventh were included in the Survey of Public Participation in the Arts (SPA). Thus, one-seventh of the roughly 14,000 households in this larger survey (or about 2,000) were assigned households from which 1500 households were interviewed after elimination of Type A, B, and C noninterviews (described in Chapter 2).

I. SAMPLE

Design

The national sample for the larger survey includes persons living in households and group quarters. Persons who are crews of vessels, in institutions or members of the armed forces living in military barracks are excluded from the survey. The sample design is a stratified multi-stage cluster sample. The primary sampling units (PSU's) were formed from counties or groups of contiguous counties using every county in the coterminous United States, Alaska and Hawaii. These 1,931 PSU's are identical to those formed for the Current Population Survey (CPS) conducted by the U.S. Bureau of the Census.

Stratification

These 1,931 PSU's were grouped into 376 strata. One hundred and fifty-six of the strata consist of only one PSU and these types of PSU's are called self-representing (SR). The remaining 220 strata were formed by combining PSU's with similar characteristics, such as geographic region, population density, rate of growth in the 1960-1970 decade, proportion nonwhite, principal industry, number of farms, retail sales per capita, etc. These characteristics were selected because they showed a strong relationship to crime victimization data. The strata were formed so that their 1970 population sizes were approximately equal. From these 220 strata, one PSU was selected per stratum with probability proportionate to the size of the PSU. These PSU's are called non-self representing (NSR). The 376 PSU's selected comprised the first stage of sampling.

The objective of the remaining stages of sampling was to obtain a self-weighting probability sample of 72,000 households. Self-weighting means that all sample units have the same initial probability of selection. The 72,000 households were divided into six groups of panels, each of which were interviewed in a given month and later at six month intervals. This sample yielded approximately 60,000 interviewed households in each six month period. The remaining 12,000 sample households were not interviewed because the occupants were not at home or were unavailable for other reasons, i.e., the sample units were vacant, demolished, or otherwise not able to be interviewed.

Rate and Interval

The rate of sampling within each PSU was determined in such a way that the overall sampling rate for each household is the same. Initially, the overall sampling rate was approximately 985. This overall rate was modified over time so that the size of the sample was held relatively constant despite the overall growth of the population. The sample of households within a PSU was selected in two stages. The first stage involved the selection of enumeration districts (ED's), geographic areas used for the 1970 Census that are usually well-defined boundaries and contain on the average, about 300 households. The ED's were selected systematically from a geographically arranged listing, so that the sample ED's were spread over the entire PSU. The ED's were selected with probabilities proportionate to their 1970 population sizes.

The next stage involved the subdivision of each selected ED into segments or clusters of about four housing units and the selection of a sample of these segments. When possible, the clusters were formed from the list of addresses compiled during the 1970 Census. If the list of addresses was incomplete or inaccurate, area sampling methods were used. The address lists were used in about two-thirds of the ED's, these being in primarily urban areas. Area sampling was then applied to the remaining ED's.

Units built after the 1970 Census was conducted which were not included in the above sampling process were sampled primarily from a list of new construction building permits issued from permit issuing offices in the areas. The resulting sample of new construction units is a small part of the total sample but increased as the decade progressed. In addition, units in group quarters such as dormitories or boarding houses known as "special places" were also selected in special place segments. These are also a small part of the total sample.

Rotation

A rotation scheme is used for the national sample. The sample of 72,000 households was divided into six groups or rotations. Once the rotation was fully operative, households in each rotation group were interviewed once every six months for three years. The initial interview served the purpose of establishing a time frame for avoiding recording duplicative reports on subsequent visits. Additional samples of 72,000 households selected in the above manner were assigned to six rotation groups for subsequent rotation into the sample. One rotation group entered the sample every six months and the corresponding rotation group from a previous sample was phased out.

The assignments of rotation group numbers and panel numbers to the 72,000 sample housing units were made to complete segments of housing units with three objectives: 1) each rotation group should be a systematic one-sixth sample of the 72,000 housing units as well as a one-sixth sample of the sample interviewed each month; 2) each panel would provide a systematic one-sixth sample of the 72,000 housing units; and 3) it would be possible to combine rotation groups and panels to form sub-samples for variance estimation purposes.

IMPLEMENTATION PROCEDURES

Coverage

The implementation of the sample in the field is concerned with locating units designated for the sample and identifying all persons living in the sample unit. This is called the "coverage of the survey." Sample units are located in various types of segments, depending upon the type of ED in which the segment is located. In the NCS national sample there are five types of segments:

(1) "Address segments" consist of addresses selected from the Decennial Census lists. Usually four housing units are designated for interview in a particular NCS segment in any one month. Interviewers list the units at an address the first time it is visited for interview and update the listing at regular intervals. NCS sample lines are predesignated on the listing sheet. The listing is completed before any units are interviewed.

(2) "Area segments" consist of geographic areas designated within area segment ED's. A map is provided on which the segment is delineated by well-defined boundaries. Units in the segments are prelisted and NCS sample units are selected prior to the time of the interview, area segments are updated at regular intervals prior to the interview visit.

(3) "Permit segments" consist of addresses selected from a sample of building permits issued for new construction. These segments represent new construction in areas covered by address segments.

(4) "Special place segments" consist of special places in the address segment ED's which can be identified from Census listings. These

include housing units and other units such as boarding houses, where unrelated persons share common facilities. These places were called "group quarters" in the Census. In large special places, units are prelisted and sampled prior to interview. All special places are updated at regular intervals.

(5) "Cen-sup segments" consist of addresses which were inadequately identified or unreported in the Census. These segments are handled like address segments except that sample units may be recycled for a later NCS sample.

There are a number of procedures designed to obtain complete and accurate coverage. In address, permit, Cen-sup, and special place segments, interviewers list units by observation, by canvassing the structure and/or by inquiry. The listing is then verified or corrected by a knowledgeable person such as a building manager. In area segments, the listing is done by observation and inquiries are done only when the number or location of units cannot be observed. The listing in area segments is supplemented by coverage questions, which are asked during the first and fourth interviews to identify extra units at sample addresses. An unbiased procedure is used for allocating extra units to sample. Sometimes after the original listing, two or more units may merge to form one unit. If the units involved are not in the same general survey sample, an unbiased procedure is used to allocate the merger to an appropriate sample.

For coverage of persons, a control card is filled out on the first interview visit for each sample unit and this is updated on subsequent visits by a series of probe questions. A list is made of all persons living or staying in a unit, and through a series of questions, those who are considered to be household members are identified.

Interviewers are unable to obtain interviews at 3 to 4 percent of the occupied units in a sample in any given month. These are classified as Type A noninterviews and a noninterview adjustment is applied so that units are representative in the sample. In addition, some units selected for a sample are vacant or otherwise not eligible for interview. Those units which might be occupied in the future are revisited while the unit is in sample. These are called Type B noninterviews. If the unit becomes occupied, the household members are interviewed. Units which are demolished, converted to non-residential use or otherwise out of sample for the larger survey are dropped from the sample. These are called Type C noninterviews. The sample size is sufficiently large to compensate for Type B and C noninterviews.

II. SAMPLING ERRORS

Estimation Procedure

The distribution of the sample usually differs somewhat from the distribution of the universe in terms of characteristics such as age, race, sex, and residence. These characteristics are closely correlated with certain measurements made from the sample. Therefore, various stages of ratio estimation are employed to bring the distribution of the sample into closer agreement with the universe distribution, as known through independent auxiliary data, thus reducing the variability of the sample estimates. Two stages of ratio estimation are employed to estimate personal characteristics; and these two stages, plus a third stage, are employed. The ratio estimation takes the form of multiplying the sample estimate of the characteristic by the ratio of the best independent estimate of the total population to the sample estimate of the total population.

III. DATA COLLECTION

Questionnaire

Three basic forms are used to collect the required data for the national sample for the larger survey. These forms are the survey Control Card, the Basic Screen Questionnaire and the Incident Report.

The Control Card is the Basic Record of each sample unit and constitutes a permanent record as long as it is in the sample. It contains the address of each sample unit and the basic household data, such as the names of all the persons living in the household, their age, sex, marital status and education. In addition, such items as family income and tenure of the unit are also included on the Control Card. The Control Card also serves as a record of visits, telephone calls, interviews, non-interview reasons, and the discovery of extra housing units. It is the first form the interviewer completes during an interview and is updated on each subsequent visit.

The Basic Screen Questionnaire is used for all sample units to obtain characteristics of the household members 12 years of age or older, as well as to screen for incidents of crime which have been committed against the household and/or household members.

After crimes have been reported in the Basic Screen Questionnaire, the respondents are questioned about the details using the Incident Report. One Incident Report is filled out for each incident reported except in certain cases ending the last day of the month which precedes the month of the interview. The interviewer never asks about incidents that occurred during the interview month or prior to that six-month reference period.

Method

The interviewer's initial contact with a sample household is a personal visit in which the maximum number of available household members 12 years or older are interviewed at the time of that visit. In order to save time and money, interviewers are allowed to make telephone callbacks to obtain interviews with the remaining household members after the initial personal interviews.

Questions pertaining to the entire household are asked only once. Almost any adult is technically eligible to answer household questions. These questions include the Control Card items and Household Screen Questions. The interviewer is instructed to interview the most knowledgeable household member for these questions.

Household Respondent

The questions on the Basic Questionnaire which pertain to individuals are asked as many times as there are eligible household members 12 years of age or older. Information about each household member 14 years and over is obtained by self-response (each individual responds for himself). Information about each household member aged 12 and 13 is obtained by a proxy interview (questions for these persons are asked of the household respondent or some other knowledgeable household member). If a particular respondent is physically or mentally unable to answer the individual questions or if he/she is temporarily absent and not expected to return before the enumeration closeout date, a proxy interview is conducted.

Interview Sequence

In the general interview sequence for the large survey, interviewers are required to: 1) complete a Control Card for the unit, 2) ask all appropriate personal characteristics and screen questions on the Basic Screen

Questionnaire, 3) complete detailed reports on the Incident Report for the household respondent in the Basic Screen Questionnaire, and 4) ask all appropriate personal characteristics and screen questions and complete the incident reports, if any, for each subsequent eligible household member. An entire interview must be completed for each household member before proceeding with the next member.

III. GENERAL DATA COLLECTION ORGANIZATION

Regional Offices

The Census Bureau has 12 permanent regional offices which serve all 50 states and the District of Columbia. Each Regional Office is staffed with one supervisor and one clerk who work on the larger survey on a full-time basis. The field staff consists of about 60 senior interviewers who assist the supervisor in conducting observations and reinterviews, and about 500 interviewers. There are several standardized manuals, training guides and control forms for purposes of operating the regional offices and training the field personnel.

Interviewer Selection and Training

Potential interviewers are recruited and administered a written standard aptitude test of 35 questions. Twenty-three or more correct responses is an acceptable score. Interviewers then complete the initial self-study package on the larger survey and attend a two-day classroom training session conducted by supervisors. Following classroom training, each interviewer is observed during the first one or two days of actual interviewing. Each new interviewer is again observed for one day during the second month of interviewing. Observations are carried out by either the supervisor or a senior interviewer. In addition to this basic training, all supervisors and interviewers receive regular monthly instructions to reinforce previously learned concepts and techniques and to provide new material.

Enumeration and Checks

Each interviewer is assigned about 30 households to interview in various segments which are as close as feasible to his/her residence. Enumeration is completed within the first two weeks of every month. The quality of interviewing is maintained through: 1) direct observation of all interviewers at least once a year; 2) office editing of completed work to ensure that instructions have been followed, entries are consistent and required items are complete; 3) verification of interviews by reinterview. Five percent of all households per month are designated for reinterview. The reinterviewing process 1) provides data for evaluating the impact of errors on variations in response; 2) measures how well individual interviewers follow procedures, and 3) also measures errors in coverage of the sample arising from incorrect listing, failure to conduct interviews at the correct address, noninterview misclassifications, missed units or incorrect application of definitions of housing units and household members.

Preparation for Interviewing

Each month interviewers receive Control Cards for each sample unit in their assigned area from their regional office. Those cards with only a completed heading indicate that the sample unit is to be interviewed for the first time. This card is the basic record for each sample unit. The front portion contains the address of the unit and basic household data such as the names, ages, race, education, and other demographics of all members living in the household if the household has been contacted before. The back of this card serves as a record of visits and telephone calls and other records such as incidents reported. The interviewers also receive basic Screen Questionnaires which contain identification items, personal characteristics, household screen items and individual screen items. Incident Report surveys are used to gather detailed information about activity in the household during the reference period. In addition, the interviewers are provided Information Card Booklets to be used in completing the interviews.

Before visiting a household in each enumeration period, an introduction letter is sent giving a brief description of the larger survey along with a fact sheet which is updated periodically to reflect the most recent survey findings. The introductory letter informs the household of the interviewer's impending visit and provides information required by the Privacy Act of 1974. This information includes the statement that the Bureau of the Census is conducting the survey for other federal agencies. The letter explains the purpose of the survey, that the information provided will be used for statistical purposes only; and that participation is voluntary although extremely important. "Thank you" letters are available to send to households which show signs of refusing or seeming reluctance to participate. These letters are always given to household respondents after the last interview. All survey materials are available in Spanish.

Interview

The first step in the interview is the introduction in which the interviewer introduces himself or herself, states that the U.S. Bureau of the Census is conducting the survey and shows the respondent an identification card. An explanation of the nature of the survey is given and it is verified that the respondent has received the introductory letter which provides information required by the Privacy Act. If the respondent requires more information, the interviewer explains why the particular respondent was chosen and impresses upon the respondent that all information about individuals is held strictly confidential by law, i.e. the name and other information that would permit personal identification of the respondent as an individual is not available to persons other than those involved in the survey; and the information from all respondents is combined to obtain statistical totals for publication.

Each respondent is interviewed privately if possible to keep unauthorized persons from listening to an interview. Special arrangements can be made if an interpreter is needed. Each question is asked exactly as instructed, in the same order and with the same wording. The interviewers observe the standard procedures for good interviewing and then record the answers on the survey form. If any of the household members 14 years old or older are not present at the time of the initial interview, callbacks to interview the remaining members are made by telephone.

V. and VI. SPA INTERVIEW PROCEDURES AND QUESTIONNAIRE

(Pertinent information noted in Chapter 2 Text)

VII. DATA PROCESING

Editing

After the field staff has completed data collection and enumeration checks, the questionnaires are sent to the main office for preparation of the data for computer processing. The clerical processing of the survey data consists of two major operations, the clerical edit and the keying of the data to magnetic tape. The main purpose of the clerical edit is to locate and correct any interviewer errors and, when possible, correct areas of respondent misunderstanding in an effort to improve the accuracy and quality of the data. A statistical quality control plan is employed in order to ensure an acceptable level of quality of the editing and coding operation. Initially, each clerk's work is verified until it is shown that the clerk is capable of performing acceptable work. After that, a random sample of the documents in each work unit is verified to ensure that the quality of the work does not deteriorate.

Data Keying

The data are keyed on a key-to-disk device. For quality control purposes, work units of approximately one hundred questionnaires each are keyed. A statistical quality control plan is employed in order to ensure an acceptable level of quality of keying. Each keyer's work is completely verified.

Computer Processing

Upon completion of keying and verification, the data for each work unit are ready for computer processing. With the receipt of the tape file of keyed questionnaires, computer processing is initiated. This processing is divided into four stages. The first is a pre-edit or correction stage in which significant interviewer and clerical errors are detected and corrected. The secondary edit stage checks the data for plausibility and conformity to questionnaire skip patterns. The third stage of table preparation includes all weighting and recoding necessary to produce the final tabulations. The fourth and final stage is the tabulation stage in which the final tables are produced.

APPENDIX B

A Comparison of Results of Data From The Louis Harris Organization and The SPA '82 Survey

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In March of 1984 the Louis Harris Organization conducted a public opinion study, "America and the Arts," for Philip Morris, Inc. The study, which was released in October of 1984, included several questions on the public's participation in certain arts activities. These figures diverged significantly from the figures that came from a 1982 national study — the Arts-Related Trends Survey (ARTS'82) conducted by the U.S. Census Bureau for the National Endowment for the Arts through the offices of the Survey Research Center of the University of Maryland. This report examines these divergences and offers several explanations for their occurence.

Table 1 describes the basic parameters of the two studies. It can be seen first that ARTS '82 had over ten times the sample size (n=17,254) than the Harris study (n=1504); ARTS '82 was also conducted across the full 12 months of the year (each month being a separate national sample of about 1500 respondents), rather than the single month of interviewing done in the Harris survey. Most of the ARTS '82 data were collected by in-person interviews conducted in the respondent's homes, rather than the completely telephone mode used in the Harris study. The sampling frame for ARTS '82 included all households in the country; the Harris sample frame was by nature restricted to households with telephones, and the sampling frame apparently constructed on a quota (by region and metropolitian area) sample basis rather than being strictly random across exchanges. Nor is information given on how individuals within the selected households were chosen in the Harris study; in ARTS '82, all respondents in the household were eligible for selection.

Finally, and perhaps most importantly, the Harris study reports no overall response rate figures. Their methodological report does not report figures on how many telephone numbers were dialed, how many refusals were encountered, how may call-backs were attempted for no answers or busy signals, how many interviews were terminated in mid-course, or how many calls were made per area (or the number of areas selected). In ARTS '82, a response rate of over 85% was obtained for every month--a rate that has not been matched by any commercial or academic survey research agency for a cross-section of the American public. Occasionally academic survey organizations, such as at the University of Michigan or the University of Chicago, reach 80% of assigned households. Most commercial organizations, and their survey sponsors, appear quite content with response rates of 50% or less.

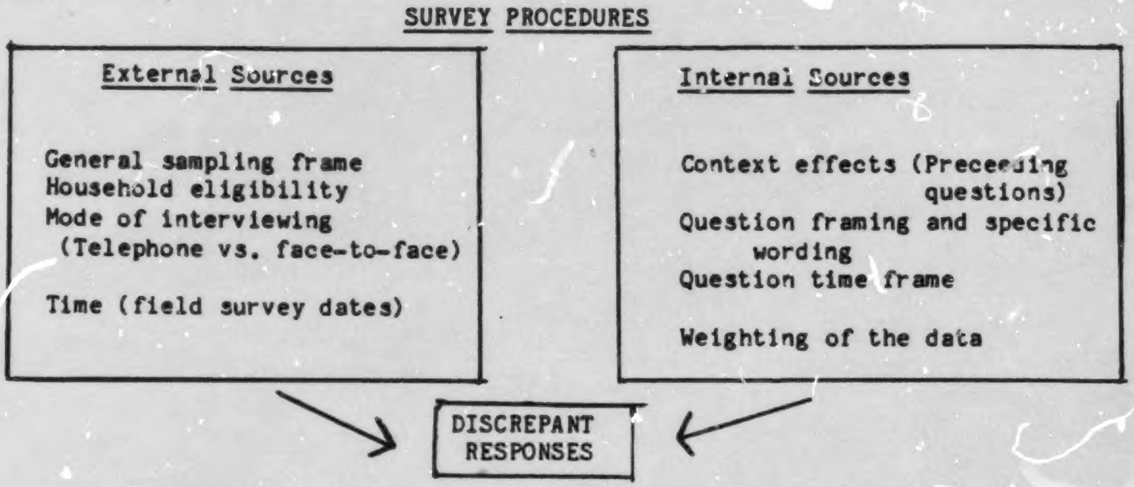
While it is not clear exactly how much of a difference each of these factors makes in the divergent results that are obtained, we will ultimately need to return to a consideration of external respondent selection procedures before making final conclusions about how to resolve the divergences that are observed. In this next section, however, we examine the more readily available evidence of another influence of certain internal sources of variation between the two surveys. These internal factors include:

1) Context effects (due to the effects of preceding questions)
2) The time-frame employed in the question
3) The wording used to frame the question
4) Demographic weights

The distinction between external and internal sources of survey variation are shown in Figure 1. To examine the above external (respondent selection) variables in more detail, we will make reference to additional studies:

1) Two recent national surveys of art participation conducted by the Survey Research Center of the University of Maryland
2) A separate study of recreation behavior recently conducted by the Census Bureau and earlier by another commercial survey firm.

Figure 1: Distinction between External and Internal Source of Survey Variables


SURVEY PROCEDURES
External Sources
General sampling frame
Household eligibility
Mode of interviewing (Telephone vs. face-to-face)
Time (field survey dates)
Internal Sources
Context effects (Preceeding questions)
Question framing and specific wording
Question time frame
Weighting of the data
DISCREPANT RESPONSES

1) Context Effects

For several years, the prevailing wisdom in the survey research community was that it did not make much difference where questions were placed in a survey questionnaire or interview. Recently, several instances of the possible skewing of results that can be introduced by preceding questions have come to light (Schuman and Presser, 1982; Turner and Krauss, 1978). They indicate that preceding questions can sometimes seriously affect the responses that people give to later questions, particularly if some expectation or mind-set is built into these preceeding survey questions. In the case of arts-related behavior, for example, prior questions that imply that respondents ought to be participating in such behavior, or that other people are participating, or that identify the purpose (or the sponsoring agency) of the study could well skew responses to the survey questions away from responses that would be obtained if no such prior questions were asked.

In the case of the Harris survey, no blatant context effects appear to be present. There are no introductory statements about the purpose of the survey or the sponsoring agency (although it is usually the case that interviewers must be prepared to give potential respondents some idea of the nature and purpose of the study if they are to secure their cooperation, and such lead-in interviewer instructions are not listed in the Harris report.) However, as noted at the bottom of Table 1, there were several questions about the arts and leisure that preceeded the arts-related participation questions -- related to the importance of the arts to the economy and the importance of creative activities generally to the respondent, to whether there should be more arts-related programs in their area and to whether the respondents themselves have engaged in various arts-related ac-

Table 1: Differences in Basic Survey Samples and Procedures

	Harris (1984)	ARTS '82
Data Collection Agency	Louis Harris and Associates, Inc.	U.S. Bureau of the Census
Sample Size	1504	17,254
Survey dates	March 5-March 15,1984 (Using same questions asked in 1980 survey)	Jan. 2-Dec. 31,1982
Survey method	100% telephone	75% personal, 25% telephone
Sample frame	Random digit dial from unknown (quota) frame	Based on 1970's Census Census
Response rate	Unknown	85-95%
Respondent selection (Within sample household)	Unknown	All residents of eligible households
Data weighting	By age, race and sex	By age, sex, and race
Preceding questions	Amount of leisure time Access to leisure facilities Importance of museums, theatres to business and economy Should be more or less (sports or arts) events given in area Importance of creative actitivies Reasons for not going to arts activities Do arts activities (See Table 4)	None (Lead questions)

tivities. There is the possibility, then, that these questions could create a mind-set for respondents that reporting more attendance at arts performances is what is expected in the survey. The respondent might want to report more arts activity, say, as a way of compensating for not being active in the arts in the prior quarter, or as a way of being consistent with their earlier statements of support for the arts (e.g. 83% of Harris survey respondents said it was at least somewhat important for them to have more creative activities in their community). Again these are not blatant examples of a biasing context effect, but the possibility for some such effect is very real.

In the case of ARTS '82, such a possible source of prior question bias is not possible since these were the first questions asked of respondents. However, the sponsoring agency of the survey was clearly identified to respondents prior to that first question -- "The Census Bureau is collecting this information for the National Endowment for the Arts". This by itself could be a serious source of higher reporting since respondents now know to which organizations to give possibly compliant responses. Whether this would encourage higher responses than the Harris questions taken alone or together is not clear, although results reported below (Table 7) indicate the ARTS'82 responses are not increased by the introduction. Nonetheless, for other arguments described below, context effects would not seem to be as major a source of the discrepant figures between the Harris and ARTS '82 studies as other factors discussed below.

2) Question Time-Frames

As shown in Table 2, the Harris survey asked several of the attendance questions using a two-stage "filtered" approach. It first asked whether

Table 2: Art Participation Questions Employed in
Harris and ARTS '82 Surveys

Harris 1984	ARTS '82
8a) Do you ever go to any live performances of plays, musical comedies, pantomime, or other kinds of theatre or not? 8g) (If Do Go) Approximately how many times did you go to live theatre performances in the past 12 months, not counting any performances given in connection with schools or classes.	5) (During the last 12 months), did you go to a live performance of a non-musical stage play? Do not include grade school or high school prodjctions. 4) During the last 12 months, did you go to live musical stage play or a operetta. Do not include grade school or high school productions.
9) Popular music performances and (10a/b) buy/listen to classical music.	NOT ASKED
10c) What about live performances of classical or symphony music by orchestra, chamber groups, soloists, etc.— do you ever go to such classical music performances or not? 10d) (If Do Go) Approximately how many times did yo go to live classical music performances in the past 12 months, not counting performances given by your children in connection with schools or classes.	2) During the last 12 months, did you go to a live classical music performance. This inludes choral music and instrumental or vocal recitals, as well as symphony and chamber music.
10e) What about live performances of opera or musical theater -- do you ever go to live opera or musical theater performances, or not? 10f) (If Do Go) Approximately how many times did you go to live performances of opera or musical theater in the past 12 months, not counting performances given by your children in connection with school or classes?	3) During the last 12 months, did you go to a live opera? 4) During the last 12 months, did yo go to a live musical stage play or an operetta? Do not include grade school or high school productions.

Harris	ARTS '82
11a) And what about dance performances do you ever go to live performances of ballet or modern dance, or folk of ethnic dance, or not?	6) During the last 12 months, did you go to a live ballet performance?
11b) Approximately how many times did you go to live performances of ballet or modern dance, or folk or ethnic dance, in the past 12 months, not counting performances given by your children in connection with school or classes?	*SRC) In the last 12 months, did you go to any other type of live dance performance, for example, modern dance, ethnic or folk dance, jazz dance, or tap dance
13a) How many times, if any, did you visit art museums that exhibit paintings, drawings, sculpture, etc., during the past 12 months?	7) During the last 12 months, did you visit an ART gallery or an ART museum?
13b) And how many times did you visit science or natural history museums during the last 12 months?	24) During the last 12 months, did you visit a science museum, natural history museum, or the like?
13c) And how about history museums which preserve objects from the past--including historic buildings or sites--how many times did you visit history museums in the past 12 months?	25) During the last 12 months, did you visit an historic park or monument, or tour buildings, or neighborhoods for their historic or design value?

Harris	ARTS '82
6) Let me read you some activities that some people do at least every once in a while. Please tell me whether you yourself do each of these activities at least every once in a while, or not.	During the last 12 months...
1. Paint, draw, or engage in graphic arts such as etching	35) Did you do any painting, drawing, sculpture, or printmaking activities?
2. Make pottery or ceramics	29) Did you work with pottery, ceramics, jewelry, or do any leatherwork, metalwork, or or similar crafts?
3. Sing in a choir or other choral group.	SRC) Have you taken singing lessons or done any singing for your own pleasure?
4. Do needlepoint, weaving, or other handwork.	30) Did you do any weaving, crocheting, quilting, needlepoint, sewing, or similar crafts?
5. Make sculpture or work with clay	35) Did you do any painting, drawing, sculpture, or printmaking activities?
6. Write stories or poems	33) Did you work on any creative writings such as stories, poems, plays, and the like? Exclude any writing done as part of a course requirement.
7. Play a musical instrument	SRC) Have you taken music lessons or played musical instruments for your own pleasure?
8. Work with a local theater group	SRC) Have you taken any acting lessons, or done any acting for your own pleasure?
9. Engage in photography	31) Did you make photographs, movies or video tapes as an artistic activity?
10. Dance ballet or modern dance	SRC) Have you taken any dance classes or done any dancing for your own pleasure - Ballet or Modern Dance?
11. Dance folk or ethnic dance	SRC) Have you taken any dance classes or done any dancing for your own pleasure - Folk/Ethnic Dance?

*SRC = Question asked in Survey Research Center follow-up project and not in ARTS '82 (see text) the respondent ever went to any such performances, and then for each "yes" response how many times the respondent had attended in the previous year. The ARTS '82 question asked directly whether the respondent had gone in the last year.

No solid survey evidence seems available to show that asking a long-range "filter" question will affect response to a follow-up shorter range question. However, it would not be surprising to find that having already said that one had engaged in a (socially desirable) activity increased the likelihood of also saying one has done that activity in the shorter run. Thus, however noble the intent of the filter in sparing respondents the burden of describing an activity in whcih they do not engage, the second stage question may very well be affected by the process of being filtered into the short-range questions and then feeling somehow inconsistent if one says they have not done the activity in the short-run.

What is more problematic in the Harris data tabulations, however, is that both responses are reported, but the first (longer time-frame) question is the one featured in the Harris summary report as reflecting yearly participation. The two sets of Harris figures are shown in the first two columns in Table 3, along with Harris results for the 1980 survey, which are rather similar.

Thus, Harris found 67% of his 1984 respondents reporting they ever attended the theater, but only 60% saying they had done so in the last year. Similarly, 60% ever went to popular music performances, but only 53% last year; 35% ever went to opera or musical theater, but only 28% last year; 34% ever attended dance vs. 28% last year and 34% to classical concerts vs. 29% last year. In general, then, the "ever attended" Harris figures are 5 to 7 percentage points higher than the Harris proportions reporting atten-

Table 3: Percentages in the Harris and ARTS '82 Surveys Reporting Attendance

	Harris 1984 (1980)		ARTS '82
	Ever Attend	Attended last year	Attended last year
Movies	NA	78(75)	63
Live performances of plays, musical comedies, pantomime, other theater	67(65)	60(59)	23
Live popular music performaces by popular singers, bands, rock groups	60(53)	53(48)	NA
Visits to art museums that exhibit paintings, drawings, sculpture	NA	58(60)	22
Live performances of opera or musical theater	35(25)	28(26)	20
Live performances of ballet or modern dance, folk or ethnic dance	34(25)	28(25)	13*
Live performances of classical or symphonic music by orchestras, chamber groups, soloists	34(26)	29(26)	13

NA=Question Not Asked

*Dance question estimates from separate questions asked in a separate 1983-84 survey by the Survey Research Center of the University of Maryland (See Table 7) dance in the last year. But this again does not account for all of the discrepancies with the ARTS '82 figures.

Moreover, it does not take into account the possibility that the Harris filter may also be responsible for some of the higher yearly estimate figures. And it can be seen in Table 3 that the Harris data for 1980 as well as 1984 are significantly higher than the ARTS'82 data, so that one is looking at an across-time phenomenon and not one related to a marked upsurge in participation.

3) Question-Wording Differences:

There are some significant differences in the question wording in the two surveys, particularly regarding which activities are combined in the question definition. As can be seen in Table 2, we find the following contrasts in activity definitions:

Harris 1984	ARTS '82
1. Plays and musicals, pantomime and other theatre	4. Musicals and operettas 5. Non-musical stage plays
2. Art museums (with examples)	7. Art museums
3. Opera or musical theatre	3. Opera 4. Musicals and operetta
4. Ballet, modern dance, folk/ethnic	6. Ballet Modern (separate SRC survey) Folk/ethnic (separate SRC survey)
5. Classical/symphony	2. Classical (includes choral music)

Thus, the Harris survey questions combine plays and musicals, and they combine opera and musical theatre (thus allowing attendance at a musical the opportunity to be counted in two separate questions). The Harris dance question also combines ballet, modern dance and folk/ethnic dance into a single question, the three were asked separately in the ARTS'82 follow-up survey. The ARTS'82 survey question, on the other hand, may produce higher estimates on two items because they explicitly include (1) operetta with musical theatre and (2) choral music with classical concerts.

One way of at least partially resolving these question discrepancies is to total the figures for the two or three separate ARTS'82 items to make them equivalent to Harris -- at least theoretically. Thus, we can combine the ARTS '82 items on plays and musicals and on opera and musical theatre; for the Harris item on ballet, modern dance and folk/ethnic dance, we can accomplish this goal only by including parallel items included in the University of Maryland follow-up national survey done in 1983 and 1984. In these national surveys, also done by telephone, separate questions were included on modern dance and on folk/ethnic dance performances.

The result of these combinations is shown in the second and third sets of columns in Table 3. In Table 3, it can be seen that even with these recalibrations, the two surveys diverge widely. The direction of the differences is quite consistent -- with the Harris survey showing far higher figures. Thus, 60% of Harris' respondents report theatre attendance in the previous year, compared to the 23% of ARTS '82 respondents who reported that in the previous 12 months they had either attended a musical or a non-musical stage play (and subtracting out the proportion who did both and would otherwise be double counted). In the cases of museum visits, the Harris data show 58%, which is more than twice as high as the 22% in the

ARTS '82 survey. While 28% of Harris' respondents reported attending opera or musical theatre, the equivalent figure for ARTS '82 is 20% (combined). For dance, the Harris figure is 28%, the ARTS '82 (combined) figure 13% and for classical concerts we find Harris at 29% and ARTS '82 at 13%.

These differences are well beyond not just the .01 but the .001 statistical significance level, and are thus not due to chance. They are not due to recent surge in attendance, for it can be seen in the figures in parentheses in Table 3 that Harris was reporting only slightly lower attendance in his 1980 arts survey. Thus, the higher Harris figures are found prior to the 1984 survey as well.

These considerably higher differences in reported participation levels in the Harris data are not just confined to performance attendance data. As shown in Table 4, the Harris figures for self -participation in various arts forms are also markedly higher. It should be noted that there are even more serious question-equivalence problems with these self-performance activities than with the attendance data. Moreover, the Harris data use a broader time frame, including activities done "at least every once in a while", which may be perceived by most respondents as extending beyond the one year time frame used in the ARTS '82 questions. (At the same time, the differences in columns 1 and 2 of Table 3, suggest that the yearly and more general time frames in Table 4 should only differ by about 10-20%.)

In summary, it would appear that question wording and definition per se also do not seem to account for the large differences in reporting levels in Tables 3 and 4. However, the question filter may have had some unknown effect in the higher Harris figures. We turn now to a factor that does seem to produce more of a difference.

Table 4: Self Participation in Arts-Related Activities

Harris
Question: Let me read you some activities that some people do at least every once in a while. Please tell me whether you yourself do each of these activities at least every once in a while, or not.

ARTS'82
Questions: See Table 2

	Personally Participate in:	
	Harris 1984	ARTS '82*
Engage in photography	47	11
Do needlepoint, weaving, or other handwork	44	32
Play a musical instrument	31	(21)
Paint, draw, or engage in graphic arts such as etching	29	10
Write stories or poems	25	6
Sing in a choir or other choral group	22	(10)
Dance ballet or modern dance	21	(7)
Dance folk or ethnic dance	17	(7)
Make pottery or ceramics	17	13
Make sculpture or work with clay	9	NOT ASKED
Work with a local theater group	7	3

* Time reference frame: previous 12 months
( ) SRC survey

4) Data Weighting

Both the Harris and ARTS '82 were weighted to reflect population totals. The Census Bureau weights reflected the 1982 Census population counts; it is not clear what population frame of reference the Harris data employ. However, as Table 5 shows, the two samples do not diverge much on the factors for which the Harris data have been weighted -- namely age, sex and race; no difference is greater than 3 percentage points. The two samples are also relatively close on the factors of region, urbanicity and generally on income.

However, for level of education, the factor that the ARTS'82 data clearly show makes the most difference in arts attendance, there is a serious departure. The Harris survey apparently interviewed ,only 49 respondents with less than a high school degree, which Harris reports as representing only 4% (actually 3.3%) of his sample. Yet the Census Bureau puts the percentage with only a grade school degree at 12% and another 13% with 9-11 years of education; both groups, then, constitute more than a quarter of the population. With less-educated respondents being so seriously underrepresented, it should not be surprising to find the Harris arts participation figures being much higher.

Nonetheless, even this educational discrepancy does not account for most of the differences in results. Table 6, arrays the educational level differences within each survey, thus directly comparing the participation rates of grade school educated, college-educated, etc. across each survey. While the comparison is not exact because the Harris data are for the ever attend responses rather than for attending in the last year. We have seen in Table 2 that these differences between Harris ever attend vs. yearly estimates are not great (being 5 to 7 percentage points). Yet, as Table 6

Table 5: Demographic Composition of the Sample

	Harris 1984		ARTS '82
	Number of Interviews	Weighted % of Total	Weighted % of Total
Nationwide	1504	100	100%
Region			
East	382	25	26
Midwest	390	26	27
South	450	30	29
West	282	19	19
Size of Place			
Cities	468	32	27
Suburbs	663	44	41
Town/rural	373	24	31
Age			
18-29 yrs	442	30	28
30-49 yrs	626	32	35
50-64 yrs	270	21	21
65 + yrs	160	16	16
Education			
8th grade	49	4	12
9-11th grades	not reported		13
High school graduate	676	47	38
Some college	392	25	19
College graduate	381	23	18
Sex			
Men	718	46	47
Women	786	54	53
Race			
White	1309	84	86
Black	124	10	10
Hispanic	71	6	4
Income			
$7,500 or less	135	13	-
$7,501-$15,000	216	18	-
$15,001-$25,000	349	19	-
$25,001-$35,000	297	16	-
$35,001-$50,000	210	14	-
$50,001 and over	166	10	-

Table 6: Differences in Attendance by Education Levels: Harris'84 and ARTS '82

	Theatre		Art Museums		Opera, Musical Theatre		Classical Concerts	
	Harris'84	ARTS'82	Harris'84	ARTS'82	Harris'84	ARTS'82	Harris'84	ARTS'8
8th grade	42	7	27	5	19	6	9	3
High school graduate	54	16	46	16	22	14	22	8
Some college	77	32	70	33	44	28	42	18
College graduate	88	50	78	49	55	43	57	34

*Harris question times four - ever attend
ARTS '82 - attended last year

shows, the Harris data estimates continue to be double or up to 49 percentage points higher than the rates reported in ARTS '82 for the equivalent educational categories.

Properly weighted Harris results by 1982 Census Bureau counts do reduce Harris estimates and in the expected downward direction; for example, after proper educational weighting, Harris' classical music attendance moves from 34% to 28% and movie attendance from 78 to 67%.

While properly weighted Harris data do come closer to the ARTS '82 data, they remain significantly different from each other even after these factors are taken into account.

Conclusions:

We have examined several factors that may account for the far higher arts participation rate figures in the 1984 Harris study data. Three of the factors that were reviewed did account for notable amounts of the discrepancy:

1) The use of the "ever go" rather than "last 12 months" time frame in the initial Harris question.

2) The inclusion of multiple activities (opera and musicals; ballet and modern dance and folk/ethnic dance) in some of the Harris questions.

3) The underrepresentation of respondents with less than a high school degree in the Harris sample — as well as the failure generally to weigh the Harris data by the proportion of respondents in various educational categories in the population.

The possibility that the Harris figures might be higher because of question context effects was also raised, but not thought to be as major a factor as those listed above. The activity definitions in the wording of the questions was not otherwise considered to be a major source of higher reporting levels.

Thus, while a good portion of the variance in results can be explained by these factors, most of it cannot be. The three factors noted above each account for higher reporting levels of about 10-20% magnitude, while the comparisons in Table 3 total up to 100% and beyond. As Table 6 shows, the proportions in the Harris survey continue to be markedly higher for the same educational levels of respondents. Thus, there is some other major factor at work leading to the discrepant figures.

One way of identifying such a factor is through a separate national study using essentially the same methods as both the Harris and ARTS '82 surveys. Such a national survey was conducted by the Survey Research Center of the University of Maryland in June of 1983 and in January of 1984. That survey used the same field data collection mode as the Harris study — the telephone. It used the same activity definitions as ARTS '82, which as we have said, do correspond fairly closely to the Harris questions. The one factor that may have been different was the response rate -- the Survey Research Center's study achieved a response rate of over 70%.

It is perhaps for that reason that the attendance figures for both of these follow-up surveys were generally within a few percentage points of those from ARTS '82. The data are shown in Table 7. These convergences hold true despite the relatively small sample size of these two SRC surveys -- about 500 respondents each. We have, then, been able to obtain comparable results to ARTS '82 with a more recent sample done strictly by telephone.

Thus, we are left with such external factor explanations as the respondent selection procedures and response rates for the Harris survey. As noted earlier, we expect that while no data are provided in the Harris report on these factors, standards on such methodological matters are much more relaxed in commercial surveys. Surveys done with careful probability methods and higher response rates are more expensive to conduct, and costs must be kept to a minimum in most commercial surveys. Moreover, the results from telephone and personal interviews usually match population quotas well; and it may be argued that, if people who respond to these surveys are seem little different from those who refuse or are hard to reach, the extra cost for higher response rates would not be justified.

In this case, however, the behavior under study appears to be much more sensitive to relaxation in respondent selection procedures. It is not unlikely that people who take part in these surveys are more interested in the arts than those who do not take part, and are thus more likely to be active in the arts, or to report being active, as well.

If so, this would not be the first case of far higher participation figures from a commerical survey organization than those from an academic agency or the Census Bureau. The data in Table 8 come from seven surveys conducted between 1960 and 1982 on the public's recreational participation. Clearly the most divergent data in Table 8 are from the 1977 survey-- one conducted by (another) well-known commercial market-research firm. While there is a general tendency for higher recreational participation in later years, the figures for the 1982 survey (also conducted by the Census Bureau) are again markedly lower than those from 1977. Analysts at the National Park Service, which sponsored these recreational studies, are persuaded that it was not only the low response rate (under 50%) in the 1977 study, but some selective bias in allowing more active respondents into the sample frame that was responsible.

For now, that selectivity factor appears to be the most plausible explanation we have for the data divergences on arts participation. Higher reporting levels may be endemic to activity participation surveys done by commercial survey firms. With their longer history and more careful attention to methodological detail, the Census Bureau figures should be a more trustworthy source.

That does not mean that the Harris data do not provide valid insights into the correlates of participation. Indeed, their relations of participation to demographic background factors (e.g. education, age) are generally similar to those from ARTS '82. It may also be the case that the Harris data do provide valid perspective on trends in participation (i.e. correlations with the factor of time). It would appear in this instance the Harris surveys have asked the same questions consistently across time; whether their other field procedures have also remained constant is not known. We will feel much more comfortable with the Harris evidence on trend data, however, if they can be replicated with data from the 1985 ARTS survey — i.e. ARTS '85, which is at this moment, and for the rest of 1985, being conducted by the Census Bureau.

Table 7: Basic Comparisons of ARTS '82 Results with Survey Research Center Results (see text)

% Attending	Attended Last Year		
Questions	ARTS '82	Survey Research Center University of Maryland	
	1982	June 83	Jan 84
Jazz	10%	9%	10%
Classical	13	11	16
Opera	3	3	2
Musicals	19	16	21
Plays	12	11	11
Ballet	4	7	7
Art Museum	22	27	32
Read novels, etc.	56	55	53
Any other music performance	NA	NA	35
Other dance performance	NA	9	9
Modern dance	NA	3	5

NA - Question Not Asked

Appendix: Original Harris Methodological Report

This fourth Americans and the Arts survey was conducted by telephone among a nationwide cross section of 1,504 adults aged 18 and over from March 5 through March 25, 1984.

The national sample was drawn to reflect, within 1%, the actual proportions of those living in the country in different regions and metropolitan (an nonmetropolitan) areas. Multistage unclustered sampling was used to select states (not including Alaska and Hawaii), then countries, and then minor civil divisions with probability proportional to census estimates of their respective adult populations.

For each of these Primary Sampling Units telephone exchanges and the next two digits in the telephone numbers were chosen on a random basis. Interviewers then added two randomly generated digits to complete a seven-digit number. This process quaranteed the inclusion in the sample of individuals who had unlisted numbers as well as those whose telephones were not yet listed.

For the purposes of analysis the data have been tabulated by key demographic subgroupings of the national population and by the size of place and geographic region in which respondents live. The regions used are:

East: Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont, Maryland, New Jersey, New York, Pennsylvania, Washington, D.C., West Virginia, Delaware

Midwest: Illinois, Indiana, Michigan, Ohio, Wisconsin, Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota

South: Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, Arkansas, Louisiana, Oklahoma, Texas

West: Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming, California, Oregon, Washington

Weighting, as is usual in the processing of data, was carried out in a two-stage procedure. First, weighting was carried out on the age, sex, and race figures in order to bring them into line with their actual proportions in the population. Then the sample was weighted on the basis of the latest data about U.S. household income distribution. This was done to allow for proper inclusion of low-income households, which may be underrepresented in telephone surveys.

The following table indicates the number of interviews conducted within each subgrouping and the weighted percentages of the total:

	Number of Interviews	Weighted % of Total
Nationwide	1504	100
Region		
East	382	25
Midwest	390	26
South	450	30
West	282	19
Size of Place		
Cities	468	32
Suburbs	663	44
Town/rural	373	24
Age		
18-29 yrs	442	30
30-49 yrs	626	32
50-64 yrs	270	21
65 + yrs	160	16
Education		
8th grade	49	4
High school graduate	676	47
Some college	392	25
College graduate	381	23
Sex		
Men	718	46
Women	786	54
Race		
White	1309	84
Black	124	10
Hispanic	71	6
Income		
$7,500 or less	135	13
$7,501-$15,000	216	18
$15,001-$25,000	349	19
$25,001-$35,000	297	16
$35,001-$50,000	210	14
$50,001 and over	166	10

Note: Subgroups do not always add to 100% because of rounding

APPENDIX C

Census Occupation Codes and Reduced Chapter 4 Occupation Codes

U.S. DEPARTMENT OF COMMERCE
Bureau of the Census
Washington, D.C. 20233

October 1975

Occupation Classification

PROFESSIONAL, TECHNICAL, AND KINDRED WORKERS

Chapter 4 Reduced Code	Census Code	
17	001	Accountants
	002	Architects
		Computer specialists
12	003	Computer programmers
	004	Computer systems analysts
	005	Computer specialists, n.e.c.
		Engineers
13	006	Aeronautical and astronautical engineers
	010	Chemical engineers
	011	Civil engineers
	012	Electrical and electronics engineers
	013	Industrial engineers
	014	Mechanical engineers
	015	Metallurgical and materials engineers
	020	Mining engineers
	021	Petroleum engineers
	022	Sales engineers
	023	Engineers, n.e.c.
10	024	Farm Management Advisors
	025	Foresters and conservationists
	026	Home management advisors
		Lawyers and judges
6	030	Judges
	031	Lawyers
		Librarians, archivists, and curators
3	032	Librarians
	033	Archivists and curators
		Mathematical specialists
4	034	Actuaries
	035	Mathematicians
	036	Statisticians
		Life and physical scientists
	042	Agricultural scientists
	043	Atmospheric and space scientists
	044	Biological scientists
	045	Chemists
	051	Geologists
	052	Marine scientists
	053	Physicists and astronomers
	054	Life and physical scientists, n.e.c.
	055	Operations and systems researchers and analysts

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apter 4

PROFESSIONAL, TECHNICAL, AND KINDRED WORKERS-Continued

Reduced Code	Census Code	
10	056	Personnel and labor relations workers
7		Physicians, dentists, and related practitioners
	061	Chiropractors
	062	Dentists
	063	Optometrists
	064	Pharmacists
	065	Physicians, medical and osteopathic
	071	Podiatrists
	072	Veterinarians
	073	Health practitioners, n.e.c.
11		Registered nurses, dietitians, and therapists
	074	Dietitians
	075	Registered nurses
	076	Therapists
14		Health technologists and technicians
	080	Clinical laboratory technologists and technicians
	081	Dental hygienists
	082	Health record technologists and technicians
	083	Radiologic technologists and technicians
	084	Therapy assistants
	085	Health technologists and technicians, n.e.c.
10		Religious workers
	086	Clergy
	090	Religious workers, n.e.c.
5		Social scientists
	091	Economists
	092	Political scientists
	093	Psychologists
	094	Sociologists
	095	Urban and regional planners
	096	Social scientists, n.e.c.
10		Social and recreation workers
	100	Social workers
	101	Recreation workers
2		Teachers, college and university
	102	Agriculture teachers
	103	Atmospheric, earth, marine, and space teachers
	104	Biology teachers
	105	Chemistry teachers
	110	Physics teachers
	111	Engineering teachers
	112	Mathematics teachers
	113	Health specialties teachers
	114	Psychology teachers
	115	Business and commerce teachers
	116	Economics teachers
	120	History teachers
	121	Sociology teachers

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PROFESSIONAL, TECHNICAL, AND KINDRED WORKERS-Continued

Chapter 4 Reduced Code	Census Code	
		Teachers, college and university-continued
2	122	Social science teachers, n.e.c.
	123	Art, drama, and music teachers
	124	Coaches and physical education teachers
	125	Education teachers
	126	English teachers
	130	Foreign language teachers
	131	Home economics teachers
	132	Law teachers
	133	Theology teachers
	134	Trade, industrial, and technical teachers
	135	Miscellaneous teachers, college and university
	140	Teachers, college and university, subject not specified
		Teachers, except college and university
9	141	Adult education teachers
	142 (N)	Elementary school teachers
	143	Prekindergarten and kindergarten teachers
8	144	Secondary school teachers
	145	Teachers, except college and university, n.e.c.
		Engineering and science technicians
13	150	Agriculture and biological technicians, except health
	151	Chemical technicians
	152	Draftsmen
	153	Electrical and electronic engineering technicians
	154	Industrial engineering technicians
	155	Mechanical engineering technicians
	156	Mathematical technicians
	161	Surveyors
	162	Engineering and science technicians, n.e.c.
		Technicians, except health, engineering and science
16	163	Airplane pilots
	164	Air traffic controllers
	165	Embalmers
	170	Flight engineers
	171	Radio operators
	172	Tool programmers, numerical control
	173	Technicians, n.e.c.
1	174	Vocational and educational counselors
		Writers, artists, and entertainers
10	175	Actors
	180	Athletes and kindred workers
	181	Authors
	182	Dancers
	183	Designers
	184	Editors and reporters
	185	Musicians and composers
	190	Painters and sculptors
	191	Photographers
	192	Public relations specialists and publicity writers
	193	Radio and television announcers
	194	Writers, artists, and entertainers, n.e.c.
	195	Research workers, not specified

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MANAGERS AND ADMINISTRATORS, EXCEPT FARM

Chapter 4 Reduced Code	Census Code	
18	201	Assessors, controllers, and treasurers; local public administration
	202	Bank officers and financial managers
19	203	Buyers and shippers, farm products
	205	Buyers, wholesale and retail trade
	210	Credit and collection managers
	211	Funeral directors
18	212	Health administrators
19	213	Construction inspectors, public administration
	215	Inspectors, except construction; public administration
	216	Managers and superintendents, building
	220	Office managers, n.e.c.
18	221	Officers, pilots, and pursers; ship
	222	Officials and administrators; public administration, n.e.c.
	223	Officials of lodges, societies, and unions
	224	Postmasters and mail superintendents
19	225	Purchasing agents and buyers, n.e.c.
	226	Railroad conductors
20	230	Restaurant, cafeteria, and bar managers
19	231	Sales managers and department heads, retail trade
	233	Sales managers, except retail trade
18	235	School administrators, college
	240	School administrators, elementary and secondary
19	245	Managers and administrators, n.e.c.

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CRAFT AND KINDRED WORKERS

Chap. 4 Reduced Code	Census Code	
38	401	Automobile accessories installers
38	402	Bakers
38	403	Blacksmiths
38	404	Boilermakers
31	405	Bookbinders
38	410	Brickmasons and stonemasons
39	411	Brickmasons and stonemasons, apprentices
38	412	Bulldozer operators
31	413	Cabinetmakers
33	415 (R)	Carpenters
39	416	Carpenter apprentices
38	420	Carpet installers
38	421	Cement and concrete finishers
38	422	Compositors and typesetters
38	423	Printing trade apprentices, except printing press
38	424	Crane, derrick, and hoist operators
31	425	Decorators and window dressers
38	426	Dental laboratory technicians
35	430	Electricians
39	431	Electrician apprentices
38	433	Electric power line and cable installers and repairers
38	434	Electrotypers and stereotypers
31	435	Engravers, exc. photoengravers
38	436	Excavating, grading, and road machine operators; exc. bulldozer
38	440	Floor layers, exc. tile setters
38	441	Blue-collar worker supervisors, n.e.c.
38	442	Forge and hammer operators
38	443	Furniture and wood finishers
38	444	Furriers
38	445	Glaziers
38	446	Heat treaters, annealers, and temperers
38	450	Inspectors, scalers, and graders; log and lumber
38	452	Inspectors, n.e.c.
31	453	Jewelers and watchmakers
38	454	Job and die setters, metal
38	455	Locomotive engineers
38	456	Locomotive firemen
38	461	Machinists
39	462	Machinist apprentices
		Mechanics and repairers
38	470	Air conditioning, heating, and refrigeration
38	471	Aircraft
37	472	Automotive body repairers
37	473 (S)	Automobile mechanics
38	474	Automobile mechanic apprentices
38	475	Data processing machine repairers
38	480	Farm implement

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PRIVATE HOUSEHOLD WORKERS

Chap. 4 Reduced Code	Census Code	
56	980	Child care workers, private household
56	981	Cooks, private household
53	982	Housekeepers, private household
53	983	Launderers, private household
53	984 (Z)	Private household cleaners and servants

WORKERS NOT CLASSIFIABLE BY OCCUPATION

	992	Armed Forces

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SALES WORKERS

Chapter 4 Reduced Code		
21	260	Advertising agents and sales workers
	261	Auctioneers
22	262	Demonstrators
	264	Hucksters and peddlers
21	265	Insurance agents, brokers, and underwriters
22	266	Newspaper carriers and vendors
21	270	Real estate agents and brokers
	271	Stock and bond sales agents
	280	Sales workers and sales clerks, n.e.c.
22	281	Sales representatives, manufacturing industries
	282	Sales representatives, wholesale trade
23	283	Sales clerks, retail trade
	284	Sales workers, except clerks, retail trade
22	285	Sales workers, services and construction

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CLERICAL AND KINDRED WORKERS

Chap. 4 Reduced Code	Census Code	
25	301	Bank tellers
[illegible]	303	Billing clerks
[illegible]	305 (P)	Bookkeepers
25	310	Cashiers
25	311	Clerical assistants, social welfare
24	312	Clerical supervisors, n.e.c.
25	313	Collectors, bill and account
25	314	Counter clerks, except food
24	315	Dispatchers and starters, vehicle
28	320	Enumerators and interviewers
24	321	Estimators and investigators, n.e.c.
24	323	Expediters and production controllers
28	325	File clerks
24	326	Insurance adjusters, examiners, and investigators
28	330	Library attendants and assistants
27	331	Mail carriers, post office
27	332	Mail handlers, except post office
27	333	Messengers and office helpers
28	334	Meter readers, utilities
		Office machine operators
29	341	Bookkeeping and billing machine operators
29	342	Calculating machine operators
29	343	Computer and peripheral equipment operators
29	344	Duplicating machine operators
29	345	Key punch operators
29	350	Tabulating machine operators
29	355	Office machine operators, n.e.c.
[illegible]	360	Payroll and timekeeping clerks
25	361	Postal clerks
27	362	Proofreaders
24	363	Real estate appraisers
25	364	Receptionists
		Secretaries
26	370	Secretaries, legal
26	371	Secretaries, medical
26	372 (Q)	Secretaries, n.e.c.
28	374	Shipping and receiving clerks
28	375	Statistical clerks
26	376	Stenographers
28	381	Stock clerks and storekeepers
24	382	Teacher aides, exc. school monitors
27	383	Telegraph messengers
27	384	Telegraph operators
27	385	Telephone operators
27	390	Ticket, station, and express agents
26	391	Typists
28	392	Weighers
30	394	Miscellaneous clerical workers
30	395	Not specified clerical workers

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CRAFT AND KINDRED WORKERS

Chap. 4 Reduced Code	Census Code	
38	481	Heavy equipment mechanics, incl. diesel
	482	Household appliance and accessory installers and mechanics
	483	Loom fixers
	484	Office machine
	485	Radio and television
	486	Railroad and car shop
	491	Mechanic, exc. auto, apprentices
	492	Miscellaneous mechanics and repairers
	495	Not specified mechanics and repairers
	501	Millers; grain, flour, and feed
	502	Millwrights
38	503	Molders, metal
39	504	Molder apprentices
38	505	Motion picture projectionists
38	506	Opticians, and lens grinders and polishers
34	510	Painters, construction and maintenance
39	511	Painter apprentices
38	512	Paperhangers
38	514	Pattern and model makers, ex. paper
31	515	Photoengravers and lithographers
3[illegible]	516	Piano and organ tuners and repairers
38	520	Plasterers
39	521	Plasterer apprentices
36	522	Plumbers and pipe fitters
39	523	Plumber and pipe fitter apprentices
38	525	Power station operators
38	530	Printing press operators
39	531	Printing press apprentices
38	533	Rollers and finishers, metal
38	534	Roofers and slaters
38	535	Sheetmetal workers and tinsmiths
39	536	Sheetmetal apprentices
38	540	[illegible]hipfitters
31	542	[illegible] repairers
38	543	S[illegible] painters and letterers
	545	Stat[illegible]ry engineers
	546	Stone [illegible]ters and stone carvers
	550	Structu[illegible] metal workers
	551	Tailors
	552	Telephone installers and repairers
	554	Telephone line installers and repairers
	560	Tile setters
38	561	Tool and die makers
39	562	Tool and die maker apprentices
38	563	Upholsterers
39	571	Specified craft apprentices, n.e.c.
39	572	Not specified apprentices
38	575	Craft and kindred workers, n.e.c.
38	580	Former members of the Armed Forces

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OPERATIVES, EXCEPT TRANSPORT

p. 4 Reduced Code	Census Code	
42	601	Asbestos and insulation workers
	602 (T)	Assemblers
	603	Blasters
	604	Bottling and canning operatives
	605	Surveyor helpers
	610	Checkers, examiners, and inspectors; manufacturing
	611	Clothing ironers and pressers
	612	Cutting operatives, n.e.c.
	613	Dressmakers, except factory
	614	Drillers, earth
	615	Dry wall installers and lathers
	620	Dyers
	621	Filers, polishers, sanders, and buffers
	622	Furnace tenders, smelters, and pourers, metal
	623	Garage workers and gas station attendants
	624	Graders and sorters, manufacturing
	625	Produce graders and packers, except factory and farm
	626	Heaters, metal
	630	Laundry and dry cleaning operatives, n.e.c.
	631	Meat cutters and butchers, exc. manufacturing
	633	Meat cutters and butchers, manufacturing
	634	Meat wrappers, retail trade
	635	Metal platers
	636	Milliners
	640	Mine operatives, n.e.c.
	641	Mixing operatives
	642	Oilers and greasers, exc. auto
↓	643	Packers and wrappers, except meat and produce
	644	Painters, manufactured articles
42	645	Photographic process workers
		Precision machine operatives
40	650	Drill press operatives
40	651	Grinding machine operatives
40	652	Lathe and milling machine operatives
40	653	Precision machine operatives, n.e.c.
42	656	Punch and stamping press operatives
	660	Riveters and fasteners
	661	Sailors and deckhands
	662	Sawyers
	663	Sewers and stitchers
↓	664	Shoemaking machine operatives
	665	Solderers
42	666	Furnace tenders and stokers, except metal

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OPERATIVES, EXCEPT TRANSPORT-Continued

Chap.4 Reduced Code	Census Code	
		Textile operatives
41	670	Carding, lapping, and combing operatives
41	671	Knitters, loopers, and toppers
41	672	Spinners, twisters, and winders
41	673	Weavers
41	674	Textile operatives, n.e.c.
42	680	Welders and flame-cutters
↓	681	Winding operatives, n.e.c.
	690	Machine operatives, miscellaneous specified
	692	Machine operatives, not specified
	694	Miscellaneous operatives
42	695	Not specified operatives

TRANSPORT EQUIPMENT OPERATIVES

	701	Boat operators
	703	Bus drivers
	704	Conductors and operators, urban rail transit
	705	Delivery and route workers
	706	Fork lift and tow motor operatives
	710	Rail vehicle operators, n.e.c.
	711	Parking attendants
	712	Railroad brake operators and couplers
45	713	Railroad switch operators
43	714	Taxicab drivers and chauffeurs
44	715 (U)	Truck drivers

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Chap. 4 Reduced Code	Census Code	LABORERS, EXCEPT FARM
46	740	Animal caretakers, exc. farm
	750	Carpenters' helpers
	751 (V)	Construction laborers, exc. carpenters' helpers
	752	Fishers, hunters, and trappers
	753	Freight and material handlers
	754	Garbage collectors
	755	Gardeners and groundskeepers, exc. farm
	760	Longshore workers and stevedores
	761	Timber cutting and logging workers
	762	Stock handlers
	763	Teamsters
	764	Vehicle washers and equipment cleaners
	770	Warehouse laborers, n.e.c.
	780	Miscellaneous laborers
46	785	Not specified laborers

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Chap. 4 Reduced Code	Census Code	FARMERS AND FARM MANAGERS
47	801 (W)	Farmers (owners and tenants)
47	802	Farm managers
		FARM LABORERS AND SUPERVISORS
47	821	Farm supervisors
48	822	Farm laborers, wage workers
48	823	Farm laborers, unpaid family workers
48	824	Farm service laborers, self-employed

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SERVICE WORKERS, EXC. PRIVATE HOUSEHOLD

Chap 4 Reduced Code	Census Code	
		Cleaning service workers
55	901	Lodging quarters cleaners, except private household
55	902	Building interior cleaners, n.e.c.
55	903 (X)	Janitors and sextons
		Food service workers
56	910	Bartenders
56	911	Waiters' assistant
56	912	Cooks, except private household
52	913	Dishwashers
52	914	Food counter and fountain workers
49	915 (Y)	Waiters
52	916	Food service workers, n.e.c., except private household
		Health service workers
51	921	Dental assistants
51	922	Health aides, exc. nursing
51	923	Health trainees
56	924	Lay midwives
51	925	Nursing aides, orderlies, and attendants
51	926	Practical nurses
		Personal service workers
56	931	Flight attendants
54	932	Attendants, recreation and amusement
54	933	Attendants, personal service, n.e.c.
54	934	Baggage porters and bellhops
56	935	Barbers
54	940	Boarding and lodging house keepers
54	941	Bootblacks
56	942	Child care workers, exc. private household
54	943	Elevator operators
56	944	Hairdressers and cosmetologists
54	945	Personal service apprentices
54	950	Housekeepers, exc. private household
54	952	School monitors
54	953	Ushers, recreation and amusement
56	954	Welfare service aides
		Protective service workers
50	960	Crossing guards and bridge tenders
50	961	Fire fighters
50	962	Guards
50	963	Marshals and constables
50	964	Police and detectives
50	965	Sheriffs and bailiffs

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